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Factors Affecting the Detection of Relationship Status Deception

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Abstract

Evolutionary theory predicts that people should have sex-specific adaptations based on differential reproductive costs and benefits. Males have to contend with the costs of being cuckolded, while females have to contend with the costs of being abandoned. Previous research on reproductive deception has shown that males and females engage in sex-specific deception in ways that maximize fitness. This project examined the ability to discern ingenuous and disingenuous claims about romantic and sexual relationship status. Participants viewed and rated the veracity of pre-recorded claims about targets' relationship status. Results showed that the ability to discern claim veracity was dependent upon the type of claim that was made, whether the claim was true or false, and the sex of the claimant and the rater. Findings provide important additions to the literature on reproductively relevant deception.

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Background

Biological differences between human males and females have resulted in mating strategies specific to each sex. Males have a much higher reproductive potential, while females are limited in number of offspring due to a shorter reproductive lifespan, lower gamete production, more spread-out allocation of gametes, and higher inter-birth intervals (Buss, 1989). Due to these differences, males are more likely to adopt an opportunistic mating strategy, which places an emphasis on high quantity of fertile mates, while females are more inclined to employ a discriminatory mating strategy that focuses on maintaining relationships with a low number of high quality mates (Buss & Schmidt, 1993; Trivers, 1972). Thus, females tend to desire a male who can and will protect and provide for her and her offspring, and seek out qualities that signal high resource acquisition potential and high commitment (Bereczkei, Voros, Gal, & Bernath, 1997; Feingold, 1992). There is evidence that females who engage in casual sex without commitment also desire these qualities, perhaps because they are using sex as a way to gain commitment (Townsend, 1995). Conversely, males pursue females who have the health and fertility to carry their offspring (Bereczkei et al., 1997; Feingold, 1991). The sex differences in mating strategy are reflected in sexual desires. Males are more likely to engage in casual sex with females, while females prefer to have sex when it is associated with commitment (Carrol, Volk, & Hyde, 1985; Clark & Hatfield, 1989).

Males also have low paternal certainty compared to females, which requires them to develop strategies to raise the likelihood of paternity (Platek et al., 2003). In addition, altricial offspring who have both parents protecting and providing for them have a much higher chance of survival. Females who are able to ensure commitment from her male sexual partner reap large benefits (Buss et al., 1992).

The Costs and Benefits of Committed Relationships

Due to the altricial nature of their offspring, humans enter into long-term pair bonds to so these offspring can be protected and provisioned for. However, because of opposing mating strategies, pair bonding is often associated with compromises. Individuals who have more traits that are desirable to the opposite sex tend to demand more from their partner in terms of their mate choice criteria. Market value is tied to a female's reproductive potential, and a male's resource acquisition capacity and likelihood of commitment (Pawlowski & Dunbar, 1999). Most individuals must compromise with respect to their long-term mates in some way, shape, or form. Males commit their time and resources to their committed female mate and her offspring, which reduces their ability to attract other mates. Females compromise on the genetic quality of their long-term male mates to ensure commitment. The criteria that make an ideal male mate do not necessarily go hand in hand; earning potential is correlated with masculinity of features, whereas commitment is correlated with femininity (Little, Cohen, Jones, & Belsky, 2007). Ultimately, humans often mate with those who have characteristics that are equivalent in value to their own (Buss, 1985).

The Costs and Benefits of Infidelity

One method to reduce the costs associated with long-term mating is to engage in infidelity. Mate poaching, or stealing someone else's current partner, is highly prevalent, with 40% of males and 30% of females reporting successfully being poached (Schmitt & Buss, 2001). Males can increase the number of offspring that they produce and females can get access to higher quality mates, which they may not have otherwise had access to due to the negative correlation between good genes and commitment (Buss & Shackelford, 2008; Greiling & Buss, 2000). Both males and females can benefit from infidelity in that their offspring will have higher genetic variability, which serves as a hedge against an uncertain future (Gallup, Birch, &

Mitchell, 2006). However, there are costs associated with infidelity. Costs are highest for a female if her committed male partner has an emotional/romantic affair without her knowledge, as he could abandon her and remove essential provisioning for their altricial offspring. Costs are highest for a male if his committed female partner has a sexual affair without his knowledge as a rival male could impregnate her, cuckolding him (Buss, 2000; Trivers, 1972). Buss et al. (1992) showed that there are sex differences in jealousy; males are more distressed when their female mates engage in sexual infidelity while females are more distressed when their male mates engage in emotional infidelity. This difference persists after controlling for the differences in likelihood between one another (Buss et al., 1999).

Sexual infidelity, or extra-pair copulation (EPC), can reap large benefits for the unfaithful member, but the costs of engaging in EPCs are only incurred if the unfaithful member is caught or suspected of cheating. In geladas, the frequency of aggressive acts is higher within five minutes of an EPC, compared to days without EPCs (leRoux, Snyder-Mackler, Roberts, Beehner, & Bergman, 2013). In humans, males and females both practice some level of mate guarding techniques (Buss, 1988). Jealousy is an evolved adaptation that motivates humans engage in mate retention behaviors, such as threatening rivals and directing vigilance and affection toward their partners (Buss, 2000). If a female is caught cheating sexually, she risks not only suffering blows to her reputation and the loss of her partner's protection and provisioning, but also contends with the high possibility of male sexual jealousy--resulting in injury or death to herself and/or her offspring (Buss, 2000; Buss & Schmitt, 1993; Daly, Wilson, & Weghorst, 1982; Gaulin & Schlegel, 1980). Ovulating females, while more likely to commit infidelity, are most heavily guarded during this phase of their menstrual cycle (Gangestad, Thornhill, &

Garver-Apgar, 2005; Haselton & Gangestad, 2006). Thus, the only way to receive the benefits of being unfaithful is to engage in successful deception of one's committed partner.

General Deception

According to Strategic Inference Theory, negative emotions evolved in part to reduce the likelihood of being deceived by punishing the behavior that led to it, especially when the deceived person's sexual strategy is compromised in the process (Haselton, Buss, Oubaid, & Angleitner, 2005). Females suspect that males will lie more about finances and willingness to commit than about their physical characteristics, especially when sexually interested (Keenan, Gallup, Goulet, & Kulkarni, 1997). Females report lying about their physical appearance, and males' reported lies tend to center around appearing more able to provide and commit; such lies are also more effective than other lies used to attract the opposite sex, as they mimic those of the ideal mate (Tooke & Camire, 1991). Dimoulas, Wender, Keenan, Gallup, and Goulet (1998) found similarly that males lie more about commitment and finances, whereas females lie about physical traits, with the frequency of lying being about equal between sexes. Lies used on the opposite sex occur much more frequently when the deceiver finds the target to be a desirable mate (Rowatt, Cunningham, & Druen, 1998; Rowatt, Cunningham, & Druen, 1999).

Hypotheses abound of possible variables that contribute to a person's ability to detect deception, such as their confidence, age, experience, education, sex, but none of these seem to have an impact (Aamodt & Custer, 2006), perhaps due to the fact that there is very little difference between individuals in this ability (Bond & DePaulo, 2008). Most people perform poorly when asked to detect deception based on demeanor, even when faced with high costs for their failure to do so (Ekman, 1996). However, there are circumstances in which people are able to detect deception more accurately than what deception researchers would typically expect. For

example, if the liar shows emotional cues due to high stakes, raters are more likely to accurately detect the deception (Frank & Ekman, 1997). One sex-specific factor that was found was that females can improve their deception detection accuracy towards males if they are taught about males' mating strategies, but without this training, they are no more accurate than chance (Barnacz, Amati, Fenton, Johnson, & Keenan, 2009).

Much research has been conducted on deception from a non-evolutionary point of view. Li (2011) hypothesized that the lack of differences in deception detection resulted from a lack of emphasis being placed on the interaction between males and females as the detector and the deceiver. She found that people are worse at judging the veracity of statements made by males, especially when the male is lying (25% accuracy), and that people are better at judging the veracity of statements made by females, especially when the female is telling the truth (80% accuracy). Li's evidence suggests that males are better deceivers, but less believable truth-tellers, than females. On average, the rate of detection was about 54%, which explains the lack of findings previously. The study did not, however, show any sex differences in the rater's accuracy levels, and focused more on the deceivers themselves.

An important aspect of Li's study is that it did not use "reproductively relevant" lies. The claims presented to the judges were about whether the potential liars chose to cheat in a trivia game activity played in a laboratory setting against a confederate. Such claims may not be relevant to the reproductive success of the liars or judges.

The Present Research

We conducted a study on sex differences in the ability to perpetrate and detect reproductively relevant deception. Our study consisted of two parts: (1) participants were asked make claims about their romantic and sexual relationship statuses on camera using a script, and

(2) a different set of participants viewed random clips of individual claims, and were asked to rate the veracity of each claim.

Specifically, we asked claimants to state that they were currently (1) in a committed romantic relationship, (2) not in a committed romantic relationship, (3) in a sexual relationship, and (4) not in a sexual relationship. We chose these claims because they were reproductively relevant, provide opposing comments (i.e., one cannot simultaneously be in a committed romantic relationship and not in a committed romantic relationship at the same time), and did not delve into aspects of people's reproductive lives that would make them particularly inclined to lie on the claimant survey (e.g., "I have committed infidelity while in a relationship" versus "I have not committed infidelity while in a relationship"). In addition, previous studies have shown that males and females differentially place importance on sexual versus emotional infidelity (Buss, Larsen, Westen, & Semmelroth, 1992). We created claims that related to these sexually dimorphic domains of reproductive cognition and behavior, where sexual relationship status claims connect with sexual fidelity and romantic relationship status claims connect with emotional infidelity.

Males are particularly concerned with the sexual fidelity of potential female mates because of the costs associated with being cuckolded, while females are more concerned with the the emotional fidelity of potential male mates because of the costs associated with being abandoned (Buss et al., 1992). Error management theory (Haselton & Buss, 2000) states individuals will evolve cognitive biases in such a way that minimize the costs associated with making specific errors, whether they be Type I (false positive) or Type II (false negative) errors. Due to the sex-differentiated costs that the sexes would suffer when making an inaccurate assessment of others' sexual and romantic relationship statuses and intentions, we predict that

males and females will be sex-differentially suspicious of the claims made by the targets, and these differences will connect with EMT strongly.

Hypothesis 1: Males will be suspicious of females claims about their sexual relationship status, which would present as a reduction in detection accuracy in claims of that type.

Hypothesis 2: Females will be suspicious of males' claims about their romantic relationship status, which would present as a reduction in detection accuracy in claims of that type.

Our hypothesis also connects with other research on deception. Hall (1978) showed that females are better at detecting non-verbal cues, so it is possible that females are better at detecting lies overall, which Keenan et al. (1997) hypothesized may be due to females having more to lose with each reproductive pairing. Females also can more accurately discern the truth after discovering a lie (McCornack & Parks, 1990). If females are indeed better at detecting lies, then it follows that males should have evolved to be better at perpetuating lies, in the evolutionary arms race between the sexes. Since this was already found in Li's (2011) study, we hope to replicate those results. However, we expect the sex-specific suspicion levels to decrease accuracy, as we predict males and females to have biases. This concept has been demonstrated by McCornack and Levine (1990), when they showed that while moderate suspicion increases accuracy, extreme suspicion decreases accuracy in determining the veracity of a claim made by a romantic partner. Although we will not be examining existing members of pair bonds, we hope to avoid the truth-bias that has been demonstrated to be greater among romantic partners (McCornack & Parks, 1986; Ekman, 1996), across all suspicion levels (Levine & McCornack, 1992).

Hypothesis 3: Females will be more accurate lie-detectors than males.

Hypothesis 4: People will be less accurate at detecting male lies than female lies.

Methods

To conduct this study, we recruited raters to come in and rate the veracity of targets' claims that they were either (a) in a committed romantic relationship, or, (b) not in a committed romantic relationship, and, (c) in a sexual relationship, or, (d) not in a sexual relationship, using a 5-point Likert scale ranging from Definitely True to Definitely False. We used these ratings to gauge not only the accuracy of the responses, but also the certainty. All procedures were approved by the UAlbany Institutional Review Board (IRB) and the SUNY at New Paltz IRB.

Participants

The participants were 145 undergraduates from the University at Albany, 62 males and 83 females. The mean age of the males was 18.7, and the mean age of the females was 18.8. Participants were given course credit for completing the study. We did ask these participants about their sexual orientation, and hence did not exclude based on that criterion.

Materials

The researchers recruited 17 males and 22 females from the State University of New York at New Paltz to generate stimuli for the study, from now on referred to as claimants. These claimants were given course credit for their participation.

Claimants completed a questionnaire consisting of questions about their age, sex, sexual orientation, current romantic relationship status (i.e., "Are you currently in a committed romantic relationship?"), and current sexual relationship status (i.e., "Are you currently in a sexual relationship?"). We did not provide an operational definition of "committed romantic relationship" or "sexual relationship" because the purpose of this study is not regarding how many claimants are in specific types of relationships, but rather their ability to lie about what they determine to be their emotional and sexual availability.

They were then instructed that they were going to make recordings about their relationship status to a camera. A board was within their visual range, containing each of the four claims that the claimants said to the camera: (a) "I am in a committed romantic relationship," (b) "I am not in a committed romantic relationship," (c) "I am in a sexual relationship," and, (d) "I am not in a sexual relationship." Claimants were instructed to be as convincing as possible, and to make claims as though they were speaking to a member of the opposite sex. They were given at least one practice run, until they could perform the procedure without error. The research assistant was present for the practice runs, but not for the actual recordings. The procedure was as follows: (a) look at the first claim and memorize it, (b) when you are ready to make the first claim without having to look at the board, face the camera and wait for five seconds by counting in your head, (c) say the first claim into the camera, (d) count to five again before repeating the procedure for the subsequent claims. After the last claim was made, claimants waited for five seconds, and then informed the research assistant that the recordings were completed. At that point, the research assistant and the claimant watched the recording, looking for pronunciation or wording errors. If they found any, the claimant was offered another chance to complete the recording without error. This procedure was repeated until a recording with no errors was acquired. All recordings were done on a Canon SS200 camcorder, mounted on a tripod, from a constant distance and focus, while sitting on a chair against a white background.

When we stopped collecting recordings, we had 17 male claimants and 22 female claimants. Our goal was to select 10 male claimants and 10 females claimants to use in the video reels to be presented to the raters. Prior to systematically selecting the videos to use, the authors created a list of exclusionary criteria to eliminate videos of claimants that met those criteria. We excluded those who did not speak naturally (e.g., robotic speech, dramatic pauses in the middle

of saying claims, stutters, etc...), were not between the ages of 18 and 24, did not finish each claim without stuttering or mumbling, or did not speak loudly and clearly. We also did not use recordings made by claimants who identified as not being heterosexual, because our hypotheses were specific to people who are heterosexual, and in the instructions we specified that they should act as though they are speaking to a member of the opposite sex. We also excluded claimants who spoke with a strong non-American accent, as it has been shown that people who have strong foreign accents are rated to be less believable, and we did not want to create a confound (Lev-Ari & Keysar, in press). When we were finished eliminating the tapes based on the listed criteria, we eliminated any extras using a random number generator and the codes that they were assigned in order to end up with only 10 recordings of claimants of each sex.

Of the videos that we did use, we ended up with a mean age of 21.3 for the female claimants and 21.0 for the male claimants. A total of 5 males were in both a romantic relationship and a sexual relationship, 1 male was in a romantic relationship and not in a sexual relations, and 4 males were neither in a romantic relationship nor in a sexual relationship. A total of 4 females were in both a romantic relationship and a sexual relationship, 2 females were not in a romantic relationship and were in a sexual relationship, and 4 females were neither in a romantic relationship nor in a sexual relationship.

We used Windows Movie Maker Version 2012 to cut the videos so as to isolate the claims from other another. Claim snippets were 5 second long, all of which start roughly 1 second before the claimant starts speaking, and end roughly 1 second after they finish. For claimants who did multiple takes, we chose the first version of each claim in which the claimant did not stutter, mumble, or look away from the camera while speaking. A total of 80 claim snippets were created; 1 for each of the 4 claims that the 20 claimants made.

We then assigned each of those claim snippets to one of two presentation groups. We divided the claims in such a way that each presentation contained one claim about each claimant's romantic relationship status and one claim about each claimant's sexual relationship status. We used a random number generator to determine whether to place the true or false claim in the first vs. second presentation group. For this step, a number of 1 was assigned to the true claim and a value of 2 was assigned to the false claim of each set. For each claimant, we separated the claim snippets in a specific pattern. First, we took their claim snippets related to romantic relationships and used the random number generator to determine whether to place the "true claim" (where the claimant's statement matched his or her actual romantic relationship status) or the "false claim" (where the claimant's statement didn't match his or her actual romantic relationship status) in the first presentation group. The claim associated with the number not generated for that trial was placed in the second presentation group. For example, If the generator spit out a "1" then the true claim relating to the romantic relationship status of the claimant in question was placed in the first presentation group, and the false claim relating to the romantic relationship of the claimant in question was placed in the second presentation group. This process was repeated again for the claim snippets related to the sexual relationship status of the claimant.

The method generated two presentation sets, where each claimant was shown making statements two times in each set, one statement relating to their romantic relationship status and one statement relating to their sexual relationship status. Whether each presentation contain the true or false claim for each specific relationship status category (romantic versus sexual) was random. Each presentation set contained 40 snippets each, for a total of 80 snippets.

For presentation 1, a total of 2 males made true claims about being in a committed romantic relationship, 3 males made true claims about not being in a committed romantic relationship, 5 males made true claims about being in a sexual relationship, 2 males made true claims about being in a not being in a sexual relationship. There was 1 male who lied about being in a committed romantic relationship, 4 males lied about not being in a committed romantic relationship, and 3 males lied about being in a sexual relationship.

For presentation 1, a total of 4 females made true claims about being in a committed romantic relationship, 2 females made true claims about not being in a committed romantic relationship, 4 females made true claims about being in a sexual relationship, and 1 female made a true claim about not being in a sexual relationship. There were 4 females who lied about being in a committed romantic relationship, 3 females who lied about being in a sexual relationship, and 2 females who lied about not being in a sexual relationship.

For presentation 2, a total of 4 males made true claims about being in a committed romantic relationship, 1 male made a true claim about not being in a committed romantic relationship, and 3 males made true claims about not being in a sexual relationship. There were 3 males who lied about being in a committed romantic relationship, 2 males who lied about not being in a committed romantic relationship, 2 males who lied about being in a sexual relationship, and 5 males who lied about not being in a sexual relationship.

For presentation 2, a total of 4 females made true claims about not being in a committed romantic relationship, 2 females made true claims about being in a sexual relationship, and 3 females made true claims about not being in a sexual relationship. There were 2 females who lied about being in a committed romantic relationship, 4 females who lied about not being in a

committed romantic relationship, 1 female who lied about being in a sexual relationship, and 4 females who lied about not being in a sexual relationship.

Next we randomized the order of the snippets. We took the first presentation set, gave each snippet in the set a code from 1 to 40, and used a random sequence generator to produce the randomized order that the snippets would be presented to the raters. We repeated this process for the second presentation, so that the order of the claimants was different for each presentation.

Finally, we used Microsoft PowerPoint 2010 to create functional presentations adapted to solve the specific logistical problems that this study presented. In each presentation, we created two slides for each snippet. The first slide contained the number of the upcoming snippet in the sequence that the raters could use to correspond their veracity ratings with the correct video, as well as a generic PowerPoint "ding" noise to alert the raters that the next video was about to play. This slide was timed to last for 5 seconds, and then automatically start the next slide. The second slide contained the number of the snippet as well as the snippet itself. The video would automatically start once the slide began, and would last for 5 seconds. After the video stopped playing, the slide remained on the screen for another 5 seconds, for a total of 10 seconds. This set of two slides repeated for each snippet until all 40 were shown. The only exception to this was that the slide that contained the last snippet on the 1st page of the raters' sheets lasted for 15 seconds, so that raters had time to turn the page. The presentations lasted approximately 10 minutes each. The data-relevant portion of the slide show was programmed in such a way that once the snippet PowerPoint presentation was started, the research assistants did not have to interact with the program in any way; it was entirely automatic.

We also created instruction slides and a set of practice slides to precede the data-relevant portion of the slide show. Judgments of veracity were made on an anonymous pencil-and-paper

survey along with demographic information about the raters' sex and age. These judgments were made on a 5-point likert scale, where 1 = 'Definitely False,' 2 = 'Possibly False,' 3 = 'Unable to Judge Veracity,' 4 = 'Possibly True,' and 5 = 'Definitely True.'

We also collected the sex of the rater, as well as asking females a few questions to discern their current place in the menstrual cycle while rating the videos, as we suspected that it may have made a difference. However, we did not include those data in the analysis, as several female raters thought that we were asking about the average length of their menstruation, rather than the average length of their entire menstrual cycle (see Appendix).

Lastly, as a control, we had 12 independent raters give attractiveness scores to the 10 male claimants and 10 female claimants on a 5-point likert scale, where 1 = 'Very Unattractive,' 2 = 'Unattractive,' 3 = 'Neither Unattractive Nor Attractive,' 4 = 'Attractive,' and 5 = 'Very Attractive.' We then averaged the scores for each claimant to assign them a mean "Attractiveness Rating." We conducted this step so we could examine the effects of claimant attractiveness on raters' deception accuracy in the future, and did not include them in our analyses at this time.

Procedure

Participants from the UAlbany Research Pool were recruited to complete the study, for which they were granted course credit. They gathered in a large lecture hall on the the campus for mass testing, facing the projector screen in the room. These participants, who were different from the claimants, will be referred to as raters from now on. Raters were handed copies of the consent form and coded surveys when they entered. 15 minutes after the start time of the experiment, the research assistants read the consent form to the raters, collected signed consent forms from raters, granted course credit to raters, and then requested that they complete the

demographics survey. Once all raters were ready to begin evaluating the claims, the researchers explained the procedure to the raters in detail, and then showed them a practice snippet that was recorded by one of the research assistants, and edited and embedded into the slide show in the same manner as the other snippets to familiarize the raters with the video presentation format. Once the practice was concluded, raters were shown the data-relevant portion of the presentation, and asked to rate the veracity of each individual claim using the questionnaire. After the final snippet was shown, raters were instructed to leave their surveys on their desks. Researchers waited until all the raters had exited the room before collecting the surveys, which were checked to ensure that each raters' surveys kept together, and coded to correspond with each other. This procedure was conducted two times; once for each presentation set.

Data Analysis

Before analyzing the data, we excluded 4 raters' responses: 2 for completing less than half of the ratings, 1 for putting the same rating for all 40 claims, and 1 because the rater was 17 years old, which is younger than what the IRB allowed.

We used IBM SPSS Version 20 to analyze the data we collected.

Results

We had five independent variables for this study, using a 2 x 2 x 2 x 2 x 2 design. The first was the sex of the rater (Sex of Rater). The second was the sex of the claimant (Sex of Claimant). The third was the actual veracity of the claim that was made (Actual Veracity): true or false. The type of claim that was made was broken down into the last two independent variables, each with two levels. Claimants either said they were in or not in a committed romantic or sexual relationship. Thus, our next independent variable was the current relationship

status that they claimed to have (Current Status): in or not in. Our final variable was the type of relationship they made a claim about (Type of Relationship): romantic or sexual.

Our dependent variable was a measure of the average of the accuracy of each response (Accuracy). First, we derived the difference value (Difference), which was calculated as the absolute value of the difference between the actual veracity (1 = a false claim made by the claimant, and 5 = a true claim made by the claimant) and the perceived veracity (1 = a rating of "Definitely False," 2 = a rating of "Possibly False," 3 = a rating of "Unable to Judge Veracity," 4 = a rating of "Possibly True," and 5 = a rating of "Definitely True"). The possible Difference scores were 0, 1, 2, 3, or 4, with larger numbers indicating a less accurate rating. In order for these numbers to make sense visually, we converted the difference scores into the dependent variable (Accuracy), such that a larger Accuracy score indicated a more accurate judgment. We did this by making it so that a Difference score of 0 became an Accuracy score of 4, 1 became 3, 2 remained 2, 3 became 1, and 4 became 0. An Accuracy value of 0 indicates that the rater was incorrect and certain (very inaccurate), 1 indicates that the rater was incorrect and uncertain (inaccurate), 2 indicates that the rater was unable to judge (neither inaccurate nor accurate), 3 indicates that the rater was correct and uncertain (accurate), and 4 indicates that the rater was correct and certain (very accurate). We assumed that, should an individual guess blindly at every opportunity, he or she would have an average Accuracy score of 2. Any average Accuracy value significantly greater than 2 indicates that raters in the particular context(s) were more accurate, and any average Accuracy value significantly less than 2 indicates that raters in the particular context(s) were less accurate.

We conducted a univariate regression to uncover which of the independent variables influenced the Accuracy. Our significant results are indicated in Table 1 in the Appendix. We

found that the Sex of Claimant [$F(1,5764)=22.415$, $p<.001$] and Actual Veracity [$F(1,5764)=77.166$, $p<.001$] accounted for a portion of the Accuracy scores. Sex of Rater did not account for a portion of the Accuracy scores [$F(1,5764)=.477$, $p>.05$), which suggests that there were no overall differences between the accuracy of the male raters and the female raters. We also found interactions between Sex of Claimant and Actual Veracity [$F(1,5764)=17.621$, $p<.001$]; Sex of Claimant and Type of Relationship [$F(1,5764)=32.804$, $p<.001$]; Actual Veracity and Current Status [$F(1,5764)=8.869$, $p<.001$]; Current Status and Type of Relationship [$F(1,5764)=24.351$, $p<.001$]; Sex of Claimant, Actual Veracity, and Current Status [$F(1,5764)=90.649$, $p<.001$]; Sex of Claimant, Current Status, and Type of Relationship [$F(1,5764)=6.600$, $p<.05$]; Actual Veracity, Current Status, and Type of Relationship [$F(1,5764)=15.023$, $p<.001$]; and Sex of Rater, Sex of Claimant, Actual Veracity, and Type of Relationship [$F(1,5764)=11.536$, $p<.01$] accounted for a portion of the scores.

We conducted several one-sample t-tests to uncover which levels of the significant independent variables and interactions were more accurate or less accurate. Our significant results can be found in Tables 2-12 in the Appendix.

Observed Truth-Bias

Table 2 indicates that there is a general truth-bias among raters. Raters were more likely to believe that claims are true, even when the claim is false ($t=-6.057$, $p<.001$). When rating claims that were true, raters were still more likely to believe that they are true ($t=7.171$, $p<.001$). This is further demonstrated in Table 3, which shows that raters were less accurate when rating false claims regardless of whether the claimants said they were in ($t=-2.857$, $p<.01$), or not in ($t=-5.751$, $p<.001$) a given type of relationship. They were more accurate when rating true claims

regardless of whether the claimants said they were in (t=3.575, $p<.001$), or not in (t=6.777, $p<.001$) a given type of relationship. These findings replicate previous research (Li, 2011).

The Effects of the Sex of the Claimant and Other IVs

Table 4 shows that people are more accurate when rating male claimants (t=2.716, $p<.01$). One of our hypotheses predicted that raters would be worse at detecting male lies, and the results in Table 4 seems contrary to that, as accuracy entails guessing correctly. Therefore, we looked at the interaction between Sex of Claimant and Actual Veracity (Table 5) to examine whether raters were accurate when the male lied or told the truth, or both. We found that raters were only more accurate when rating male claimants who told the truth (t=4.919, $p<.001$), whereas they were not more accurate or less accurate when rating male claimants who lied (t=-1.115, $p>.05$). However, we did find that raters were less accurate when rating female claimants who lied (t=-7.549, $p<.001$), which suggests the raters believed that females' lies were true. Raters were also more accurate when rating females who told the truth (t=5.222, $p<.001$). Thus, raters seem to perceive females as telling the truth whether they lied or told the truth, and males as telling the truth only when they actually told the truth. When males lied, the truth-bias disappeared, and raters did not perform better than if they were guessing, which suggests that raters can detect when males are lying in at least some circumstances.

Table 6 indicates that male raters are more accurate when rating male claimants (t=1.984, $p<.05$), but less accurate when rating female claimants (t=-2.092, $p<.05$). Otherwise, the sex of the rater and the sex of the claimant do not interact.

Table 7 shows that raters are more accurate when rating males making claims about their sexual relationship status (t=4.833, $p<.001$) and when rating females making claims about their romantic relationship status (t=2.927, $p<.01$). Raters are less accurate when rating females

making claims about their sexual relationship status (t=-4.978, p<.001). These data suggest that raters are better at discerning males' sexual relationship status, and females' romantic relationship status.

Interactions with All IVs

We also used post-hoc Bonferroni tests to determine which levels of the interaction of all five variables were different from each other. The significant results can be found in Table 13 in the Appendix. This Table shows which level is more or less accurate than another, which of the independent variables were different between those two levels, as well as whether each level was more accurate or less accurate. We did this because these analyses provide us with the most detailed picture of which situation is more or less accurate than another. Comparisons without all five levels are less meaningful because significant results could stem from more specific comparisons.

Main Effects and Two-Way Interactions

We conducted post-hoc Bonferroni tests on two-way interactions that were different between two or more of the levels. Figures 1-9 depict these effects. Figure 1 represents the mean Accuracy scores for the Sex of Claimant independent variable. Figure 2 represents the mean Accuracy scores for the Actual Veracity independent variable. Figure 3 represents the mean Accuracy scores for the interactions between Sex of Claimant and Sex of Rater. Figure 4 represents the mean Accuracy scores for the interactions between Sex of Rater and Actual Veracity. Figure 5 represents the mean Accuracy scores for the interactions between Sex of Claimant and Actual Veracity. Figure 6 represents the mean Accuracy scores for the interactions between Sex of Claimant and Type of Relationship, which roughly approximates the trend we predicted in Hypotheses 1 and 2. Figure 7 represents the mean Accuracy scores for the

interactions between Actual Veracity and Current Status. Figure 8 represents the mean Accuracy scores for the interactions between Actual Veracity and Type of Relationship. Figure 9 represents the mean Accuracy scores for the interactions between Type of Relationship and Current Status.

Discussion

This study examined the effects of sex interactions as well as the content of claims on raters' ability to detect deception and claimants' ability to perpetrate deception. We found that accuracy in detecting deception was influenced by the variables we examined, whether as a main effect or part of an interaction.

Hypothesis 1, which states that male raters would be less accurate when rating female claimants who made claims about their sexual relationship status, was supported. Males were more likely to believe a female who lied when she said she was in a sexual relationship than a female who lied or told the truth when she said she was not in a sexual relationship, as well as several other conditions. These data suggest that males believed that females were having sex even when they were not. It is important to note that males were less accurate when rating females who lied when they said they were in a sexual relationship, but were not more or less accurate when rating females who told the truth when they said they were in a sexual relationship. Independent samples t-tests were used to test the difference in Perceived Veracity (the actual veracity scores they gave when rating claims) between males rating females who lied about being in a sexual relationship and males rating females who told the truth about being in a sexual relationship. The results showed that males were more likely to believe false claims than true claims ($t=5.434$, $p<.001$). This is particularly peculiar, since most true claims were found to be rated more accurately due to the truth bias, whereas the truth bias seemed only to exist in the

case that the female was lying. Hence, males were particularly inaccurate in both scenarios, as compared to the other trends. These findings support our hypothesis that males are inaccurate in that situation, and raise some very interesting questions. Males appear to be picking up cues and answering differentially based on the Actual Veracity, but being wrong about the veracity. This trend persisted when the rater was a female as well, which suggests that people in general assume that females are having sex, and are skeptical when they say they are not. Our hypothesis is that females lie about their sexual activity, since they may suffer reputational costs if they are honest, which, if true, may cause the bias for people not to believe females who say they are not having sex, but there is not enough evidence to support this hypothesis. When it involved female raters, there were no differences with the male rater, but it was not different from as many conditions as when it was a male rater. Further experimentation will be required to understand the causal factors of this effect more fully.

Hypothesis 2, which predicted that females would be less accurate when rating males who made claims about their romantic relationship status, was also supported. A female rater was less likely to believe a male claimant who lied when he said he was in a committed romantic relationship than a male claimant who lied when he said he was not in a committed romantic relationship or a male claimant who told the truth when he said he was in a sexual relationship. These data suggest that females believed that males were not in romantic relationships even when they were. We did not find any peculiar results in this category similar to those regarding females telling the truth about being in a sexual relationship. These findings support our hypothesis that females will be inaccurate in this situation. The fact that females seemed to assume that he was not committed could be interpreted as a form of commitment skepticism, in which females are less likely to believe claims made by males about their desire to commit

(Haselton & Buss, 2000). This can also possibly be explained by the reproductive priming effect (Platek, Burch, & Gallup, 2001), which shows that people who are in relationships report more dating opportunities. We suspect that females may find males who are committed to be more attractive as possible mates. This could lead to females being less likely to believe males who say they are committed, to avoid pursuit of relatively undesirable mates. Due to the materials we used, these data are only suggestive as to the reason why females are skeptical. This trend also remained when the rater was a male, and there was no difference between male and female raters. However, the condition in which the rater was a female was different from more conditions than the condition in which the rater was a male. This suggests that people in general do not believe that a male is committing to a female. Since we did not tell raters to imagine that the claimants were speaking directly to them, nor did we imply that the claimants were attempting to commit or copulate with any of the raters, we have no reason to believe that females were assuming that males were available when they were not. However, further experimentation is required to eliminate this possibility.

Hypothesis 3, which states that females will be more likely than males to perceive false claims as being false, was not supported by our data, even though Hall's (1978) meta-analysis of deception studies did find supporting evidence for that hypothesis. This could be due to the fact that our study did not include general stimuli, but rather claims that both males and females were particularly biased about. Females were not more accurate or less accurate than males at detecting false claims. In fact, both males and females were less accurate when rating false claims. We suspect this to be a consequence of the truth bias that our subjects and others exhibit (Li, 2011). Previous research has shown that most people tend to tell the truth most of the time (Bond & DePaulo, 2006), and other researchers have suggested that people are cognitively

biased toward believing that statements made by others are true (Levine & Kim, 2010). Furthermore, variation in lie-detecting ability clearly varied as a function of the claim being made, and only rarely did raters perform more accurately when detecting lies (2 conditions for male raters - a male rating a male who lied when he said he was in a committed romantic relationship and a male rating a male who lied when he said he was in a sexual relationship, and 1 for females - a female rating a male who lied when he said he was in a committed romantic relationship).

Hypothesis 4, which predicted that people will be less likely to detect lies made by males than lies made by females, was also not supported by our data, even though Li (2011) did find supporting evidence for that hypothesis. People were actually more accurate when rating male liars than when rating female liars. When rating female liars, they were less accurate. When rating male liars, they were more accurate. While these findings are completely contrary to our hypothesis, preliminary analyses suggest this is due to two unattractive male claimant outliers. The two males who received the lowest average attractiveness scores were both not in sexual relationships, and people were extremely accurate at detecting that they were not, when they lied and said that they were. When we removed them from the sample, this finding actually reversed, and people were less accurate when rating male claimants ($t=-3.454$, $p<.01$), and there was no difference between the accuracy when rating male or female liars ($t=1.375$, $p>.05$). This is still contrary to our hypothesis, as either way, males are not better at deceiving than females, although it is possible that they are better, which may just be attributed to the truth-bias. Further analyses will be conducted in the future to determine the extent of the effects of attractiveness outliers.

In addition to the findings that were directly relevant to our hypotheses, we also uncovered other results that were interesting. The most accurate condition was when female raters examined true claims made by females that they were in committed romantic relationships. This was more accurate than any other condition in which females rated females (including females lying about being and not being in committed romantic relationships as well as telling the truth about not being in committed romantic relationships). This effect occurred specifically when the claim was true, suggesting that females were picking up cues when it was true. A possible explanation for this is that females may have evolved adaptations to accurately detect when a female was committed, so as to deem her less of a threat to be a mate poach. An interesting follow-up study might include questions about whether the rater would be willing to befriend the claimant, especially if she was in a romantic relationship herself. When the female claimant is not committed, it is probably not important whether she is lying or not, she is most likely a threat. Females are no better at detecting when a female is lying about being committed, but since they are so good at detecting when it is true, perhaps they do not trust females whose relationship status they cannot discern for sure.

Limitations

As previously indicated, this research was highly preliminary in nature in its examination of the perpetration and detection of reproductively-relevant lies. For that reason, these data are very tentative. One important limitation was the stimuli we used as the claims. To avoid having the claimants make statements about infidelity that might compromise their reputations, we only had them make claims about their relationship status, which are difficult to interpret. We also did not define romantic relationships or sexual relationships, nor did we examine how raters or claimants link these in their minds, which may have played a role. We are unsure how raters

placed themselves in the scenario, especially since they were in a mass-testing room with several other participants: did they perceive the claimants to be making claims about their availability to enter into a new relationship, or did they perceive the claimants to be making claims about their own commitments to their partners? We believe it was most likely the latter, but it would be interesting to observe how the data might change if the raters were instructed to perceive the claimants as potential partners.

Another limitation is that the claimants had no incentive to be convincing. Although we did eliminate videos in which the claimant did not appear to be trying to be convincing, there was no motivation aside from the researcher telling them to be. Furthermore, the ecological validity was not very high, as claimants were speaking to a video camera in a room alone, whereas they may elicit different cues if they were speaking to a male or female in person, especially one whom they were interested in pursuing a relationship with. Also, the claims that were made are not easily transferrable to social situations, as it is unclear in which scenario one might hear someone make a claim about their relationship status without context, and for an unclear reason. Claimants also were not able to elaborate further, or given a chance to answer questions and possibly create inconsistencies in their lies. It is possible that we would have found stronger effects of the Sex of Claimant if we had allowed their natural skills in deception to take on a more realistic format. The fact that raters were watching videos instead of interacting and asking questions to the claimants also may have masked some of the raters' abilities to detect lies, and we may have found a Sex of Rater effect if this had been different.

Another issue is the brevity of the stimuli. Using clips that were 5s long gave relatively little information for raters to use to evaluate the veracity of the claims. As such, raters may be

using heuristics and relying on biases to a great degree to make veracity decisions, rather than using the information presented in the stimuli to make veracity decisions.

Also, we only had 20 claimants, so the variability in attractiveness and Actual Veracity was limited, and certainly not a representative sample. However, the focus of this study was more about the raters' suspicions than the claimants' deception ability. Future studies which focus on the claimants' abilities would need a more representative sample of claimants.

It is also possible that the claimants lied on the survey, claiming that their current romantic and/or sexual relationship status is different on the survey than what it actually was for them. Revealing information about one's reproductive life on surveys yields little benefit for participants, especially when the researchers do not attempt to verify the validity of the claims made on the claimant survey, and the participants are not rewarded for telling truth and punished for lying, while opening the possibility of suffering costs should their anonymity be compromised. In fact, we believe that people, especially females, may have been selected over time to lie about their reproductive activities when it was adaptive to do so.

We also used an undergraduate sample, so the results may not be generalizable to the overall population. However, the sample we used involved people who are in prime reproductive age, which fits the needs of our study.

Directions for Future Research

One possible direction to take in the future is to use stimuli that claimants are more motivated to tell the truth and/or lie about. While it is possible that claimants had an incentive to lie on the surveys about their current relationship status, we did not instruct the participants to make claims that would likely result in drastic costs. If, for example, we asked people to make

claims about their previous history related to sexual infidelity, then the claimants may have been more convincing when making claims due to the costs associated with a lack of deceptiveness.

Another possibility is to have claimants make claims that specify who they are in a relationship with, such as their significant other. They can also make claims specifically stating that they are or are not available to enter into a relationship, and claims about their desire to enter into a relationship. That way, there is less ambiguity regarding what cues the raters are responding to.

Since we were unable to include ovulatory cycle effects on the raters in this study, we think it would be beneficial to include that in any replications, but with clearer instructions for the questions. Furthermore, we think it is important to include analyses of the effect of the attractiveness of the claimants. The sexual orientation of the raters may have played a role, as we did not control for that, and a larger sample would allow researchers to attempt to replicate these results with non-heterosexual claimants, to compare the results. Also, the sexual and romantic relationship status of the raters may be important to examine, as their biases may vary as a function of their relationship status. It may also be worthwhile to include a sociosexual inventory for the raters, to see whether one's openness to uncommitted sex affects how suspicious or accurate they are about these types of claims. Finally, researchers should consider including questions about raters' self-perceived attractiveness, to determine whether that affects the way they interpret members of the opposite sex lying about their availability.

We could use a more open-ended version of the stimuli presentation. Rather than have uniform videos presented to raters, we could have claimants make reproductively relevant claims to a live audience of rater(s). While such a procedure would be less controlled than the method

we used in the current project, it would better approximate real-world situations where people attempt to perpetuate and detect deception to a greater degree than the current procedure.

As this is preliminary data, there are many directions in which to take the future research.

Conclusion

We have demonstrated that the content of lies influences detection accuracy. Our hypotheses regarding male raters being less accurate when rating female claimants who made claims about their sexual relationship status and female raters being less accurate when rating male claimants who made claims about their romantic relationship status, were supported. However, our hypotheses regarding females being more likely than males to perceive false claims as being false and people being less likely to detect lies made by males than lies made by females, were not supported. While this preliminary study has limitations, and there are many directions that future projects could take to investigate this topic further, we believe we have made a unique and interesting contribution to the scientific understanding of the evolutionary basis of reproductively relevant deception.

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Appendix

Table 1. Regression analysis of IVs' effect on Accuracy

Independent Variable	*F*	*p*
Sex of Claimant	22.415	<.001
Actual Veracity	77.166	<.001
Sex of Claimant X Actual Veracity	17.621	<.001
Sex of Claimant X Type of Relationship	32.804	<.001
Actual Veracity X Current Status	8.869	<.001
Current Status X Type of Relationship	24.351	<.001
Sex of Claimant X Actual Veracity X Current Status	90.649	<.001
Sex of Claimant X Current Status X Type of Relationship	6.600	.010
Actual Veracity X Current Status X Type of Relationship	15.023	<.001
Sex of Rater X Sex of Claimant X Actual Veracity X Type of Relationship	11.536	.001

Table 2. Significant levels of Actual Veracity and their effect on Accuracy

Actual Veracity	Accuracy	Difference	*P*
False	Less Accurate	.153	<.001
True	More Accurate	.171	<.001

Table 3. Significant levels of Actual Veracity by Current Status and their effect on Accuracy

Actual Veracity	Current Status	Accuracy	Difference	*p*
False	In	Less Accurate	.100	.004
False	Not In	Less Accurate	.209	<.001
True	In	More Accurate	.113	<.001
True	Not In	More Accurate	.245	<.001

Table 4. Significant levels of Sex of Claimant and their effect on Accuracy

Sex of Claimant	Accuracy	Difference	*p*
Male	More Accurate	.067	.007

Table 5. Significant levels of Sex of Claimant by Actual Veracity and their effect on Accuracy

Sex of Claimant	Actual Veracity	Accuracy	Difference	*P*
Male	True	More Accurate	.165	<.001
Female	False	Less Accurate	.263	<.001
Female	True	More Accurate	.177	<.001

Table 6. Significant levels of Sex of Rater by Sex of Claimant and their effect on Accuracy

Sex of Rater	Sex of Claimant	Accuracy	Difference	*p*
Male	Male	More Accurate	.075	.048
Male	Female	Less Accurate	.079	.037

Table 7. Significant levels of Sex of Claimant by Type of Relationship and their effect on Accuracy

Sex of Claimant	Type of Relationship	Accuracy	Difference	*P*
Male	Sexual	More Accurate	.168	<.001
Female	Romantic	More Accurate	.100	.003
Female	Sexual	Less Accurate	.175	<.001

Table 8. Significant levels of Current Status by Type of Relationship and their effect on Accuracy

Current Status	Type of Relationship	Accuracy	Difference	*P*
In	Romantic	More Accurate	.100	.003

Table 9. Significant levels of Current Status by Type of Relationship by Actual Veracity and their effect on Accuracy

Current Status	Type of Relationship	Actual Veracity	Accuracy	Difference	*p*
Not In	Romantic	False	Less Accurate	.338	<.001
In	Sexual	False	Less Accurate	.232	<.001
In	Romantic	True	More Accurate	.168	<.001
Not In	Romantic	True	More Accurate	.248	<.001
Not In	Sexual	True	More Accurate	.240	<.001

Table 10. Significant levels of Sex of Claimant by Current Status by Type of Relationship and their effect on Accuracy

Sex of Claimant	Current Status	Type of Relationship	Accuracy	Difference	*p*
Male	In	Sexual	More Accurate	.110	.014
Male	Not In	Sexual	More Accurate	.248	<.001
Female	In	Romantic	More Accurate	.178	<.001
Female	In	Sexual	Less Accurate	.242	<.001

Table 11. Significant levels of Sex of Claimant by Actual Veracity by Current Status and their effect on Accuracy

Sex of Claimant	Actual Veracity	Current Status	Accuracy	Difference	*p*
Male	False	In	More Accurate	.202	<.001
Male	False	Not In	Less Accurate	.248	<.001
Male	True	Not In	More Accurate	.430	<.001
Female	False	In	Less Accurate	.340	<.001
Female	False	Not In	Less Accurate	.162	.003
Female	True	In	More Accurate	.273	<.001

Table 12. Significant levels of Sex of Rater by Sex of Claimant by Actual Veracity by Type of Relationship and their effect on Accuracy

Sex of Rater	Sex of Claimant	Actual Veracity	Type of Relationship	Accuracy	Difference	*p*
Male	Male	False	Romantic	Less Accurate	.181	.019
Male	Male	False	Sexual	More Accurate	.113	.001
Male	Female	False	Romantic	Less Accurate	.182	.013
Male	Female	False	Sexual	Less Accurate	.437	<.001
Male	Female	True	Romantic	More Accurate	.246	.001
Female	Male	True	Sexual	More Accurate	.373	<.001
Female	Female	False	Romantic	Less Accurate	.149	.021
Female	Female	False	Sexual	Less Accurate	.299	>.001
Female	Female	True	Romantic	More Accurate	.409	<.001

Table 13. Comparisons of accuracy between levels of 5-way interaction

First Comparison	Accuracy Direction	Second Comparison	Differences Between Comparisons	Mean Difference	*p*
(1)## A male rating a male who lied when he said he was in a committed romantic relationship	More accurate than	(2)# A male rating a male who lied when he said he was not in a committed romantic relationship	Current Status	.695	.005
(1)## A male rating a male who lied when he said he was in a committed romantic relationship	More accurate than	(11)# A male rating a female who lied when she said she was in a sexual relationship	Type of Relationship Sex of Claimant	1.081	<.001
(1)## A male rating a male who lied when he said he was in a committed romantic relationship	More accurate than	(18)# A female rating a male who lied when he said he was not in a committed romantic relationship	Sex of Rater Current Status	.642	.012
(1)## A male rating a male who lied when he said he was in a committed romantic relationship	More accurate than	(27)# A female rating a female who lied when she said she was in a sexual relationship	Sex of Rater Type of Relationship Sex of Claimant	.837	<.001
(2)# A male rating a male who lied when he said he was not in a committed romantic relationship	Less accurate than	(3)## A male rating a male who lied when he said he was in a sexual relationship	Current Status Type of Relationship	.740	<.001

First Comparison	Accuracy Direction	Second Comparison	Differences Between Comparisons	Mean Difference	*p*
(2)# A male rating a male who lied when he said he was not in a committed romantic relationship	Less accurate than	(6)## A male rating a male who told the truth when he said he was not in a committed romantic relationship	Actual Veracity	.830	<.001
(2)# A male rating a male who lied when he said he was not in a committed romantic relationship	Less accurate than	(8)## A male rating a male who told the truth when he said he was not in a sexual relationship	Type of Relationship Actual Veracity	.831	<.001
(2)# A male rating a male who lied when he said he was not in a committed romantic relationship	Less accurate than	(13)## A male rating a female who told the truth when she said she was in a committed romantic relationship	Current Status Sex of Claimant Actual Veracity	.835	<.001
(2)# A male rating a male who lied when he said he was not in a committed romantic relationship	Less accurate than	(17)## A female rating a male who lied when he said he was in a committed romantic relationship	Sex of Rater Current Status	.718	<.001
(2)# A male rating a male who lied when he said he was not in a committed romantic relationship	Less accurate than	(22)## A female rating a male who told the truth when he said he was not in a committed romantic relationship	Sex of Rater Actual Veracity	.773	<.001

First Comparison	Accuracy Direction	Second Comparison	Differences Between Comparisons	Mean Difference	*p*
(2)# A male rating a male who lied when he said he was not in a committed romantic relationship	Less accurate than	(23)## A female rating a male who told the truth when he said he was in a sexual relationship	Sex of Rater Current Status Type of Relationship Actual Veracity	.680	<.001
(2)# A male rating a male who lied when he said he was not in a committed romantic relationship	Less accurate than	(24)## A female rating a male who told the truth when he said he was not in a sexual relationship	Sex of Rater Type of Relationship Actual Veracity	.895	<.001
(2)# A male rating a male who lied when he said he was not in a committed romantic relationship	Less accurate than	(29)## A female rating a female who told the truth when she said she was in a committed romantic relationship	Sex of Rater Current Status Sex of Claimant Actual Veracity	1.092	<.001
(2)# A male rating a male who lied when he said he was not in a committed romantic relationship	Less accurate than	(30)## A female rating a female who told the truth when she said she was not in a committed romantic relationship	Sex of Rater Sex of Claimant Actual Veracity	.587	.001
(2)# A male rating a male who lied when he said he was not in a committed romantic relationship	Less accurate than	(31) A female rating a female who told the truth when she said she was in a sexual relationship	Sex of Rater Current Status Type of Relationship Sex of Claimant Actual Veracity	.477	.035

First Comparison	Accuracy Direction	Second Comparison	Differences Between Comparisons	Mean Difference	*p*
(3)## A male rating a male who lied when he said he was in a sexual relationship	More accurate than	(11)# A male rating a female who lied when she said she was in a sexual relationship	Sex of Claimant	1.126	<.001
(3)## A male rating a male who lied when he said he was in a sexual relationship	More accurate than	(18)# A female rating a male who lied when he said he was not in a committed romantic relationship	Sex of Rater Current Status Type of Relationship	.688	<.001
(3)## A male rating a male who lied when he said he was in a sexual relationship	More accurate than	(21)# A female rating a male who told the truth when he said he was in a committed romantic relationship	Sex of Rater Type of Relationship Actual Veracity	.577	.005
(3)## A male rating a male who lied when he said he was in a sexual relationship	More accurate than	(27)# A female rating a female who lied when she said she was in a sexual relationship	Sex of Rater Sex of Claimant	.883	<.001
(4) A male rating a male who lied when he said he was not in a sexual relationship	More accurate than	(11)# A male rating a female who lied when she said she was in a sexual relationship	Current Status Sex of Claimant	.948	<.001

First Comparison	Accuracy Direction	Second Comparison	Differences Between Comparisons	Mean Difference	*p*
(4) A male rating a male who lied when he said he was not in a sexual relationship	More accurate than	(27)# A female rating a female who lied when she said she was in a sexual relationship	Sex of Rater Current Status Sex of Claimant	.705	.009
(5) A male rating a male who told the truth when he said he was in a committed romantic relationship	More accurate than	(11)# A male rating a female who lied when she said she was in a sexual relationship	Type of Relationship Sex of Claimant Actual Veracity	.661	.004
(5) A male rating a male who told the truth when he said he was in a committed romantic relationship	Less accurate than	(13)## A male rating a female who told the truth when she said she was in a committed romantic relationship	Sex of Claimant	.560	.040
(5) A male rating a male who told the truth when he said he was in a committed romantic relationship	Less accurate than	(24)## A female rating a male who told the truth when he said he was not in a sexual relationship	Sex of Rater Current Status Type of Relationship	.620	.003
(5) A male rating a male who told the truth when he said he was in a committed romantic relationship	Less accurate than	(29)## A female rating a female who told the truth when she said she was in a committed romantic relationship	Sex of Rater Sex of Claimant	.817	<.001

First Comparison	Accuracy Direction	Second Comparison	Differences Between Comparisons	Mean Difference	*p*
(6)## A male rating a male who told the truth when he said he was not in a committed romantic relationship	More accurate than	(7) A male rating a male who told the truth when he said he was in a sexual relationship	Current Status Type of Relationship	.542	.045
(6)## A male rating a male who told the truth when he said he was not in a committed romantic relationship	More accurate than	(9) A male rating a female who lied when she said she was in a committed romantic relationship	Current Status Sex of Claimant Actual Veracity	.545	.045
(6)## A male rating a male who told the truth when he said he was not in a committed romantic relationship	More accurate than	(10)# A male rating a female who lied when she said she was not in a committed romantic relationship	Sex of Claimant Actual Veracity	.781	.010
(6)## A male rating a male who told the truth when he said he was not in a committed romantic relationship	More accurate than	(11)# A male rating a female who lied when she said she was in a sexual relationship	Current Status Type of Relationship Sex of Claimant Actual Veracity	1.216	<.001

First Comparison	Accuracy Direction	Second Comparison	Differences Between Comparisons	Mean Difference	*p*
(6)## A male rating a male who told the truth when he said he was not in a committed romantic relationship	More accurate than	(18)# A female rating a male who lied when he said he was not in a committed romantic relationship	Sex of Rater Actual Veracity	.778	<.001
(6)## A male rating a male who told the truth when he said he was not in a committed romantic relationship	More accurate than	(25) A female rating a female who lied when she said she was in a committed romantic relationship	Sex of Rater Current Status Sex of Claimant Actual Veracity	.548	.020
(6)## A male rating a male who told the truth when he said he was not in a committed romantic relationship	More accurate than	(26) A female rating a female who lied when she said she was not in a committed romantic relationship	Sex of Rater Sex of Claimant Actual Veracity	.626	.021
(6)## A male rating a male who told the truth when he said he was not in a committed romantic relationship	More accurate than	(27)# A female rating a female who lied when she said she was in a sexual relationship	Sex of Rater Current Status Type of Relationship Sex of Claimant Actual Veracity	.973	<.001

First Comparison	Accuracy Direction	Second Comparison	Differences Between Comparisons	Mean Difference	*p*
(6)## A male rating a male who told the truth when he said he was not in a committed romantic relationship	More accurate than	(28) A female rating a female who lied when she said she was not in a sexual relationship	Sex of Rater Type of Relationship Sex of Claimant Actual Veracity	.536	.040
(7) A male rating a male who told the truth when he said he was in a sexual relationship	More accurate than	(11)# A male rating a female who lied when she said she was in a sexual relationship	Sex of Claimant Actual Veracity	.674	.001
(7) A male rating a male who told the truth when he said he was in a sexual relationship	Less accurate than	(13)## A male rating a female who told the truth when she said she was in a committed romantic relationship	Type of Relationship Sex of Claimant	.547	.019
(7) A male rating a male who told the truth when he said he was in a sexual relationship	Less accurate than	(24)## A female rating a male who told the truth when he said he was not in a sexual relationship	Sex of Rater Current Status	.606	.001
(7) A male rating a male who told the truth when he said he was in a sexual relationship	Less accurate than	(29)## A female rating a female who told the truth when she said she was in a committed romantic relationship	Sex of Rater Type of Relationship Sex of Claimant	.804	<.001

First Comparison	Accuracy Direction	Second Comparison	Differences Between Comparisons	Mean Difference	*p*
(8)## A male rating a male who told the truth when he said he was not in a sexual relationship	More accurate than	(10)# A male rating a female who lied when she said she was not in a committed romantic relationship	Type of Relationship Sex of Claimant Actual Veracity	.781	.011
(8)## A male rating a male who told the truth when he said he was not in a sexual relationship	More accurate than	(11)# A male rating a female who lied when she said she was in a sexual relationship	Current Status Sex of Claimant Actual Veracity	1.217	<.001
(8)## A male rating a male who told the truth when he said he was not in a sexual relationship	More accurate than	(18)# A female rating a male who lied when he said he was not in a committed romantic relationship	Sex of Rater Type of Relationship Actual Veracity	.779	<.001
(8)## A male rating a male who told the truth when he said he was not in a sexual relationship	More accurate than	(21)# A female rating a male who told the truth when he said he was in a committed romantic relationship	Sex of Rater Current Status Type of Relationship	.668	.001
(8)## A male rating a male who told the truth when he said he was not in a sexual relationship	More accurate than	(25) A female rating a female who lied when she said she was in a committed romantic relationship	Sex of Rater Current Status Type of Relationship Sex of Claimant Actual Veracity	.549	.023

First Comparison	Accuracy Direction	Second Comparison	Differences Between Comparisons	Mean Difference	*p*
(8)## A male rating a male who told the truth when he said he was not in a sexual relationship	More accurate than	(26) A female rating a female who lied when she said she was not in a committed romantic relationship	Sex of Rater Type of Relationship Sex of Claimant Actual Veracity	.627	.024
(8)## A male rating a male who told the truth when he said he was not in a sexual relationship	More accurate than	(27)# A female rating a female who lied when she said she was in a sexual relationship	Sex of Rater Current Status Sex of Claimant Actual Veracity	.974	<.001
(8)## A male rating a male who told the truth when he said he was not in a sexual relationship	More accurate than	(28) A female rating a female who lied when she said she was not in a sexual relationship	Sex of Rater Sex of Claimant Actual Veracity	.537	.046
(9) A male rating a female who lied when she said she was in a committed romantic relationship	More accurate than	(11)# A male rating a female who lied when she said she was in a sexual relationship	Type of Relationship	.671	.001
(9) A male rating a female who lied when she said she was in a committed romantic relationship	Less accurate than	(13)## A male rating a female who told the truth when she said she was in a committed romantic relationship	Actual Veracity	.549	.019

First Comparison	Accuracy Direction	Second Comparison	Differences Between Comparisons	Mean Difference	*p*
(9) A male rating a female who lied when she said she was in a committed romantic relationship	Less accurate than	(24)## A female rating a male who told the truth when he said he was not in a sexual relationship	Sex of Rater Current Status Type of Relationship Sex of Claimant Actual Veracity	.609	.001
(9) A male rating a female who lied when she said she was in a committed romantic relationship	Less accurate than	(29)## A female rating a female who told the truth when she said she was in a committed romantic relationship	Sex of Rater Actual Veracity	.807	<.001
(10)# A male rating a female who lied when she said she was not in a committed romantic relationship	Less accurate than	(13)## A male rating a female who told the truth when she said she was in a committed romantic relationship	Current Status Actual Veracity	.786	.005
(10)# A male rating a female who lied when she said she was not in a committed romantic relationship	Less accurate than	(22)## A female rating a male who told the truth when he said he was not in a committed romantic relationship	Sex of Rater Sex of Claimant Actual Veracity	.724	.022
(10)# A male rating a female who lied when she said she was not in a committed romantic relationship	Less accurate than	(24)## A female rating a male who told the truth when he said he was not in a sexual relationship	Sex of Rater Type of Relationship Sex of Claimant Actual Veracity	.845	.001

First Comparison	Accuracy Direction	Second Comparison	Differences Between Comparisons	Mean Difference	*p*
(10)# A male rating a female who lied when she said she was not in a committed romantic relationship	Less accurate than	(29)## A female rating a female who told the truth when she said she was in a committed romantic relationship	Sex of Rater Current Status Actual Veracity	1.043	<.001
(11)# A male rating a female who lied when she said she was in a sexual relationship	Less accurate than	(12) A male rating a female who lied when she said she was not in a sexual relationship	Current Status	.679	.002
(11)# A male rating a female who lied when she said she was in a sexual relationship	Less accurate than	(13)## A male rating a female who told the truth when she said she was in a committed romantic relationship	Type of Relationship Actual Veracity	1.221	<.001
(11)# A male rating a female who lied when she said she was in a sexual relationship	Less accurate than	(14) A male rating a female who told the truth when she said she was not in a committed romantic relationship	Current Status Type of Relationship Actual Veracity	.840	<.001
(11)# A male rating a female who lied when she said she was in a sexual relationship	Less accurate than	(15) A male rating a female who told the truth when she said she was in a sexual relationship	Actual Veracity	.805	<.001

First Comparison	Accuracy Direction	Second Comparison	Differences Between Comparisons	Mean Difference	*p*
(11)# A male rating a female who lied when she said she was in a sexual relationship	Less accurate than	(16) A male rating a female who told the truth when she said she was not in a sexual relationship	Current Status Actual Veracity	.831	<.001
(11)# A male rating a female who lied when she said she was in a sexual relationship	Less accurate than	(17)## A female rating a male who lied when he said he was in a committed romantic relationship	Sex of Rater Type of Relationship Sex of Claimant	1.104	<.001
(11)# A male rating a female who lied when she said she was in a sexual relationship	Less accurate than	(19) A female rating a male who lied when he said he was in a sexual relationship	Sex of Rater Sex of Claimant	.767	<.001
(11)# A male rating a female who lied when she said she was in a sexual relationship	Less accurate than	(20) A female rating a male who lied when he said he was not in a sexual relationship	Sex of Rater Current Status Sex of Claimant	.665	.002
(11)# A male rating a female who lied when she said she was in a sexual relationship	Less accurate than	(21)# A female rating a male who told the truth when he said he was in a committed romantic relationship	Sex of Rater Type of Relationship Sex of Claimant Actual Veracity	.549	.027

First Comparison	Accuracy Direction	Second Comparison	Differences Between Comparisons	Mean Difference	*p*
(11)# A male rating a female who lied when she said she was in a sexual relationship	Less accurate than	(22)## A female rating a male who told the truth when he said he was not in a committed romantic relationship	Sex of Rater Current Status Type of Relationship Sex of Claimant Actual Veracity	1.159	<.001
(11)# A male rating a female who lied when she said she was in a sexual relationship	Less accurate than	(23)## A female rating a male who told the truth when he said he was in a sexual relationship	Sex of Rater Sex of Claimant Actual Veracity	1.066	<.001
(11)# A male rating a female who lied when she said she was in a sexual relationship	Less accurate than	(24)## A female rating a male who told the truth when he said he was not in a sexual relationship	Sex of Rater Current Status Sex of Claimant Actual Veracity	1.281	<.001
(11)# A male rating a female who lied when she said she was in a sexual relationship	Less accurate than	(25) A female rating a female who lied when she said she was in a committed romantic relationship	Sex of Rater Type of Relationship	.668	<.001
(11)# A male rating a female who lied when she said she was in a sexual relationship	Less accurate than	(28) A female rating a female who lied when she said she was not in a sexual relationship	Sex of Rater Current Status	.680	<.001

First Comparison	Accuracy Direction	Second Comparison	Differences Between Comparisons	Mean Difference	*p*
(11)# A male rating a female who lied when she said she was in a sexual relationship	Less accurate than	(29)## A female rating a female who told the truth when she said she was in a committed romantic relationship	Sex of Rater Type of Relationship Actual Veracity	1.478	<.001
(11)# A male rating a female who lied when she said she was in a sexual relationship	Less accurate than	(30)## A female rating a female who told the truth when she said she was not in a committed romantic relationship	Sex of Rater Current Status Type of Relationship Actual Veracity	.973	<.001
(11)# A male rating a female who lied when she said she was in a sexual relationship	Less accurate than	(31) A female rating a female who told the truth when she said she was in a sexual relationship	Sex of Rater Actual Veracity	.863	<.001
(11)# A male rating a female who lied when she said she was in a sexual relationship	Less accurate than	(32) A female rating a female who told the truth when she said she was not in a sexual relationship	Sex of Rater Current Status Actual Veracity	.660	.005
(12) A male rating a female who lied when she said she was not in a sexual relationship	Less accurate than	(24)## A female rating a male who told the truth when he said he was not in a sexual relationship	Sex of Rater Sex of Claimant Actual Veracity	.612	.006

First Comparison	Accuracy Direction	Second Comparison	Differences Between Comparisons	Mean Difference	*p*
(12) A male rating a female who lied when she said she was not in a sexual relationship	Less accurate than	(29)## A female rating a female who told the truth when she said she was in a committed romantic relationship	Sex of Rater Current Status Type of Relationship Actual Veracity	.799	<.001
(13)## A male rating a female who told the truth when she said she was in a committed romantic relationship	More accurate than	(18)# A female rating a male who lied when he said he was not in a committed romantic relationship	Sex of Rater Current Status Sex of Claimant Actual Veracity	.783	<.001
(13)## A male rating a female who told the truth when she said she was in a committed romantic relationship	More accurate than	(20) A female rating a male who lied when he said he was not in a sexual relationship	Sex of Rater Current Status Type of Relationship Sex of Claimant Actual Veracity	.556	.032
(13)## A male rating a female who told the truth when she said she was in a committed romantic relationship	More accurate than	(21)# A female rating a male who told the truth when he said he was in a committed romantic relationship	Sex of Rater Sex of Claimant	.672	<.001

First Comparison	Accuracy Direction	Second Comparison	Differences Between Comparisons	Mean Difference	*p*
(13)## A male rating a female who told the truth when she said she was in a committed romantic relationship	More accurate than	(25) A female rating a female who lied when she said she was in a committed romantic relationship	Sex of Rater Actual Veracity	.552	.007
(13)## A male rating a female who told the truth when she said she was in a committed romantic relationship	More accurate than	(26) A female rating a female who lied when she said she was not in a committed romantic relationship	Sex of Rater Current Status Actual Veracity	.630	.010
(13)## A male rating a female who told the truth when she said she was in a committed romantic relationship	More accurate than	(27)# A female rating a female who lied when she said she was in a sexual relationship	Sex of Rater Type of Relationship Actual Veracity	.978	<.001
(13)## A male rating a female who told the truth when she said she was in a committed romantic relationship	More accurate than	(28) A female rating a female who lied when she said she was not in a sexual relationship	Sex of Rater Current Status Type of Relationship Actual Veracity	.540	.016

First Comparison	Accuracy Direction	Second Comparison	Differences Between Comparisons	Mean Difference	*p*
(13)## A male rating a female who told the truth when she said she was in a committed romantic relationship	More accurate than	(32) A female rating a female who told the truth when she said she was not in a sexual relationship	Sex of Rater Current Status Type of Relationship	.561	.049
(14) A male rating a female who told the truth when she said she was not in a committed romantic relationship	More accurate than	(27)# A female rating a female who lied when she said she was in a sexual relationship	Sex of Rater Current Status Type of Relationship Actual Veracity	.597	.011
(14) A male rating a female who told the truth when she said she was not in a committed romantic relationship	Less accurate than	(29)## A female rating a female who told the truth when she said she was in a committed romantic relationship	Sex of Rater Current Status	.638	.002
(15) A male rating a female who told the truth when she said she was in a sexual relationship	More accurate than	(27)# A female rating a female who lied when she said she was in a sexual relationship	Sex of Rater Actual Veracity	.562	.010
(15) A male rating a female who told the truth when she said she was in a sexual relationship	Less accurate than	(29)## A female rating a female who told the truth when she said she was in a committed romantic relationship	Sex of Rater Type of Relationship	.673	<.001

First Comparison	Accuracy Direction	Second Comparison	Differences Between Comparisons	Mean Difference	*p*
(16) A male rating a female who told the truth when she said she was not in a sexual relationship	Less accurate than	(29)## A female rating a female who told the truth when she said she was in a committed romantic relationship	Sex of Rater Current Status Type of Relationship	.648	.025
(17)## A female rating a male who lied when he said he was in a committed romantic relationship	More accurate than	(18)# A female rating a male who lied when he said he was not in a committed romantic relationship	Current Status	.666	<.001
(17)## A female rating a male who lied when he said he was in a committed romantic relationship	More accurate than	(21)# A female rating a male who told the truth when he said he was in a committed romantic relationship	Actual Veracity	.555	.018
(17)## A female rating a male who lied when he said he was in a committed romantic relationship	More accurate than	(27)# A female rating a female who lied when she said she was in a sexual relationship	Type of Relationship Sex of Claimant	.861	<.001
(18)# A female rating a male who lied when he said he was not in a committed romantic relationship	Less accurate than	(22)## A female rating a male who told the truth when he said he was not in a committed romantic relationship	Actual Veracity	.721	<.001

First Comparison	Accuracy Direction	Second Comparison	Differences Between Comparisons	Mean Difference	*p*
(18)# A female rating a male who lied when he said he was not in a committed romantic relationship	Less accurate than	(23)## A female rating a male who told the truth when he said he was in a sexual relationship	Current Status Type of Relationship Actual Veracity	.627	<.001
(18)# A female rating a male who lied when he said he was not in a committed romantic relationship	Less accurate than	(24)## A female rating a male who told the truth when he said he was not in a sexual relationship	Type of Relationship Actual Veracity	.842	<.001
(18)# A female rating a male who lied when he said he was not in a committed romantic relationship	Less accurate than	(29)## A female rating a female who told the truth when she said she was in a committed romantic relationship	Current Status Sex of Claimant Actual Veracity	1.040	<.001
(18)# A female rating a male who lied when he said he was not in a committed romantic relationship	Less accurate than	(30)## A female rating a female who told the truth when she said she was not in a committed romantic relationship	Sex of Claimant Actual Veracity	.535	.002
(19) A female rating a male who lied when he said he was in a sexual relationship	Less accurate than	(24)## A female rating a male who told the truth when he said he was not in a sexual relationship	Current Status Actual Veracity	.513	.028

First Comparison	Accuracy Direction	Second Comparison	Differences Between Comparisons	Mean Difference	*p*
(19) A female rating a male who lied when he said he was in a sexual relationship	More accurate than	(27)# A female rating a female who lied when she said she was in a sexual relationship	Sex of Claimant	.524	.033
(19) A female rating a male who lied when he said he was in a sexual relationship	Less accurate than	(29)## A female rating a female who told the truth when she said she was in a committed romantic relationship	Type of Relationship Sex of Claimant Actual Veracity	.711	<.001
(20) A female rating a male who lied when he said he was not in a sexual relationship	Less accurate than	(24)## A female rating a male who told the truth when he said he was not in a sexual relationship	Actual Veracity	.616	.002
(20) A female rating a male who lied when he said he was not in a sexual relationship	Less accurate than	(29)## A female rating a female who told the truth when she said she was in a committed romantic relationship	Current Status Type of Relationship Sex of Claimant Actual Veracity	.813	<.001
(21)# A female rating a male who told the truth when he said he was in a committed romantic relationship	Less accurate than	(22)## A female rating a male who told the truth when he said he was not in a committed romantic relationship	Current Status	.610	.001

First Comparison	Accuracy Direction	Second Comparison	Differences Between Comparisons	Mean Difference	*p*
(21)# A female rating a male who told the truth when he said he was in a committed romantic relationship	Less accurate than	(23)## A female rating a male who told the truth when he said he was in a sexual relationship	Type of Relationship	.517	.007
(21)# A female rating a male who told the truth when he said he was in a committed romantic relationship	Less accurate than	(24)## A female rating a male who told the truth when he said he was not in a sexual relationship	Current Status Type of Relationship	.732	<.001
(21)# A female rating a male who told the truth when he said he was in a committed romantic relationship	Less accurate than	(29)## A female rating a female who told the truth when she said she was in a committed romantic relationship	Sex of Claimant	.929	<.001
(22)## A female rating a male who told the truth when he said he was not in a committed romantic relationship	More accurate than	(25) A female rating a female who lied when she said she was in a committed romantic relationship	Current Status Sex of Claimant Actual Veracity	.491	.047

First Comparison	Accuracy Direction	Second Comparison	Differences Between Comparisons	Mean Difference	*p*
(22)## A female rating a male who told the truth when he said he was not in a committed romantic relationship	More accurate than	(27)# A female rating a female who lied when she said she was in a sexual relationship	Current Status Type of Relationship Sex of Claimant Actual Veracity	.916	<.001
(23)## A female rating a male who told the truth when he said he was in a sexual relationship	More accurate than	(27)# A female rating a female who lied when she said she was in a sexual relationship	Sex of Claimant Actual Veracity	.822	<.001
(24)## A female rating a male who told the truth when he said he was not in a sexual relationship	More accurate than	(25) A female rating a female who lied when she said she was in a committed romantic relationship	Current Status Type of Relationship Sex of Claimant Actual Veracity	.612	<.001
(24)## A female rating a male who told the truth when he said he was not in a sexual relationship	More accurate than	(26) A female rating a female who lied when she said she was not in a committed romantic relationship	Type of Relationship Sex of Claimant Actual Veracity	.690	.001
(24)## A female rating a male who told the truth when he said he was not in a sexual relationship	More accurate than	(27)# A female rating a female who lied when she said she was in a sexual relationship	Current Status Sex of Claimant Actual Veracity	1.037	<.001

First Comparison	Accuracy Direction	Second Comparison	Differences Between Comparisons	Mean Difference	*p*
(24)## A female rating a male who told the truth when he said he was not in a sexual relationship	More accurate than	(28) A female rating a female who lied when she said she was not in a sexual relationship	Sex of Claimant Actual Veracity	.600	.001
(24)## A female rating a male who told the truth when he said he was not in a sexual relationship	More accurate than	(32) A female rating a female who told the truth when she said she was not in a sexual relationship	Sex of Claimant	.621	.004
(25) A female rating a female who lied when she said she was in a committed romantic relationship	Less accurate than	(29)## A female rating a female who told the truth when she said she was in a committed romantic relationship	Actual Veracity	.810	<.001
(26) A female rating a female who lied when she said she was not in a committed romantic relationship	Less accurate than	(29)## A female rating a female who told the truth when she said she was in a committed romantic relationship	Current Status Actual Veracity	.888	<.001
(27)# A female rating a female who lied when she said she was in a sexual relationship	Less accurate than	(29)## A female rating a female who told the truth when she said she was in a committed romantic relationship	Type of Relationship Actual Veracity	1.235	<.001

First Comparison	Accuracy Direction	Second Comparison	Differences Between Comparisons	Mean Difference	*p*
(27)# A female rating a female who lied when she said she was in a sexual relationship	Less accurate than	(30)## A female rating a female who told the truth when she said she was not in a committed romantic relationship	Current Status Type of Relationship Actual Veracity	.730	<.001
(27)# A female rating a female who lied when she said she was in a sexual relationship	Less accurate than	(31) A female rating a female who told the truth when she said she was in a sexual relationship	Actual Veracity	.620	<.001
(28) A female rating a female who lied when she said she was not in a sexual relationship	Less accurate than	(29)## A female rating a female who told the truth when she said she was in a committed romantic relationship	Current Status Type of Relationship Actual Veracity	.798	<.001
(29)## A female rating a female who told the truth when she said she was in a committed romantic relationship	More accurate than	(30)## A female rating a female who told the truth when she said she was not in a committed romantic relationship	Current Status	.505	.030
(29)## A female rating a female who told the truth when she said she was in a committed romantic relationship	More accurate than	(31) A female rating a female who told the truth when she said she was in a sexual relationship	Type of Relationship	.615	<.001

First Comparison	Accuracy Direction	Second Comparison	Differences Between Comparisons	Mean Difference	*p*
(29)## A female rating a female who told the truth when she said she was in a committed romantic relationship	More accurate than	(32) A female rating a female who told the truth when she said she was not in a sexual relationship	Current Status Type of Relationship	.818	<.001

This table depicts significant differences in mean Accuracy scores between levels of the 5-way interaction of the IVs. # indicates a level that is less accurate, ## indicates a level that is more accurate, and no #'s indicate a lack of difference in accuracy. The "Differences Between Comparisons" column indicates which IVs varied between the first and second comparison in that row.

Figures:

Lines between bars indicate significant difference between the means of those two groups.

* indicates a $p<.05$

** indicates a $p<.01$

*** indicates a $p<.001$

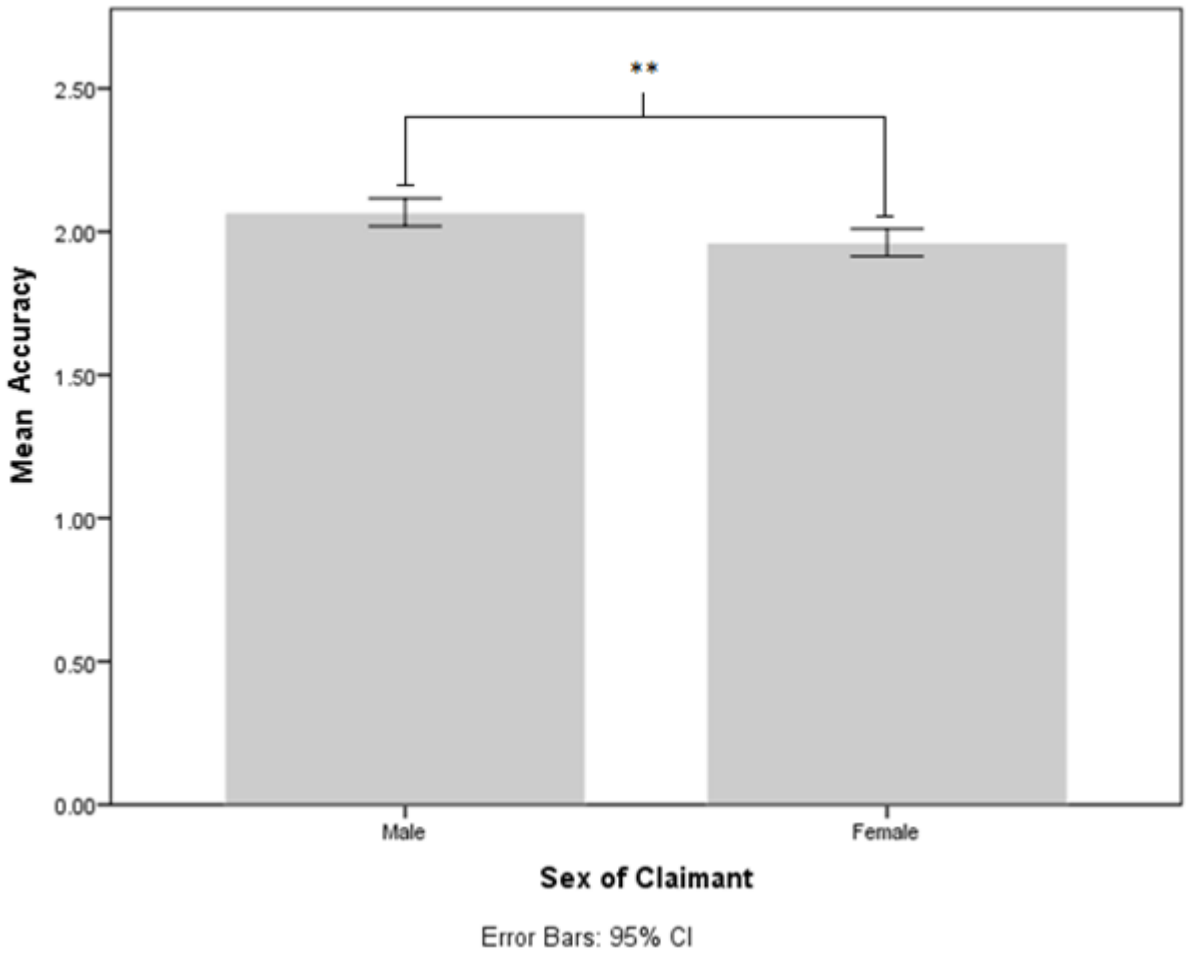

Figure 1. Sex of Claimant

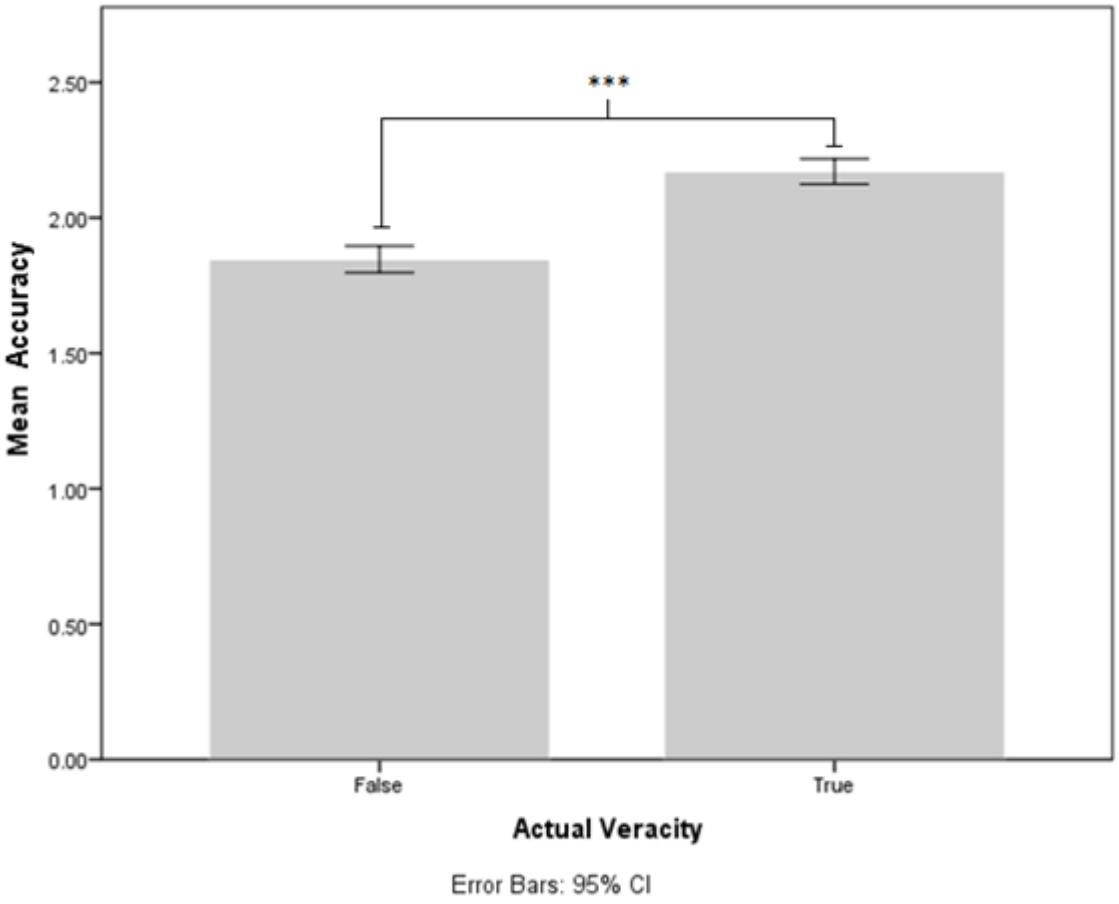

Figure 2. Actual Veracity

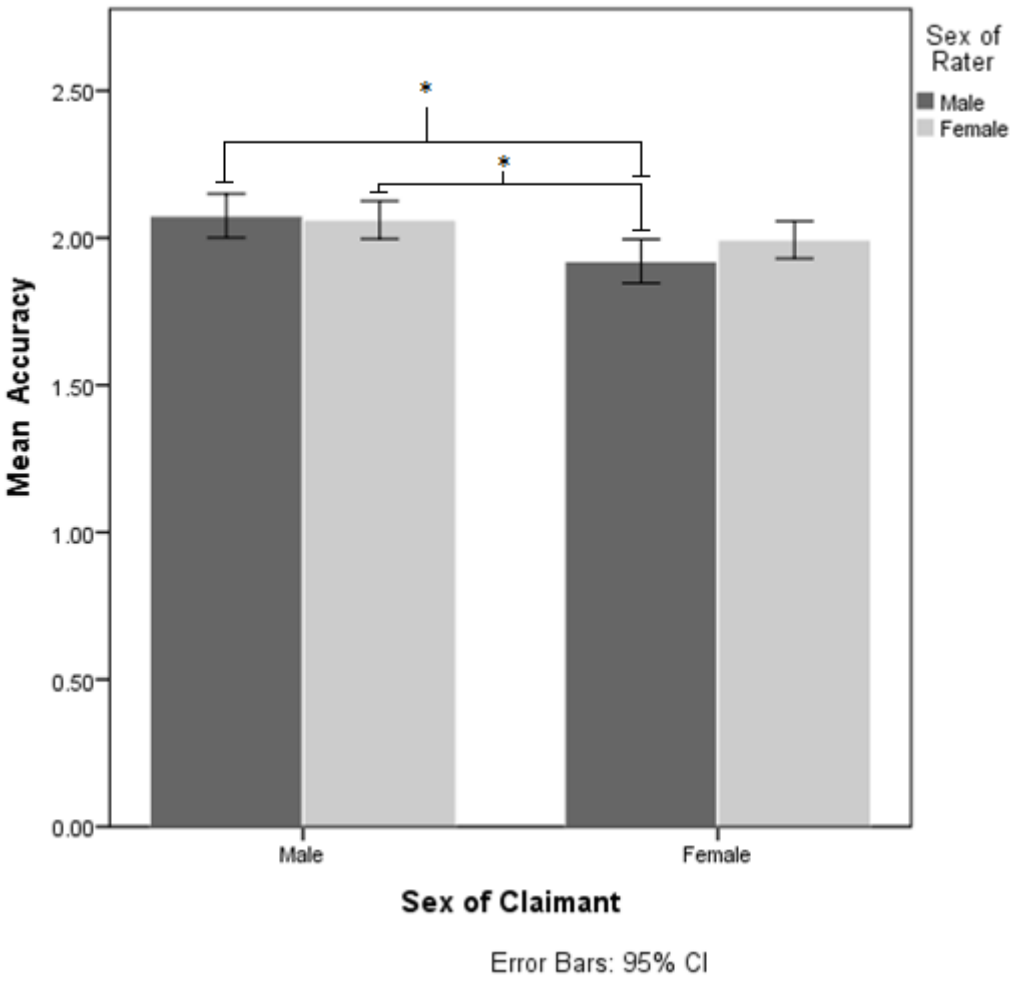

Figure 3. Sex of Claimant by Sex of Rater

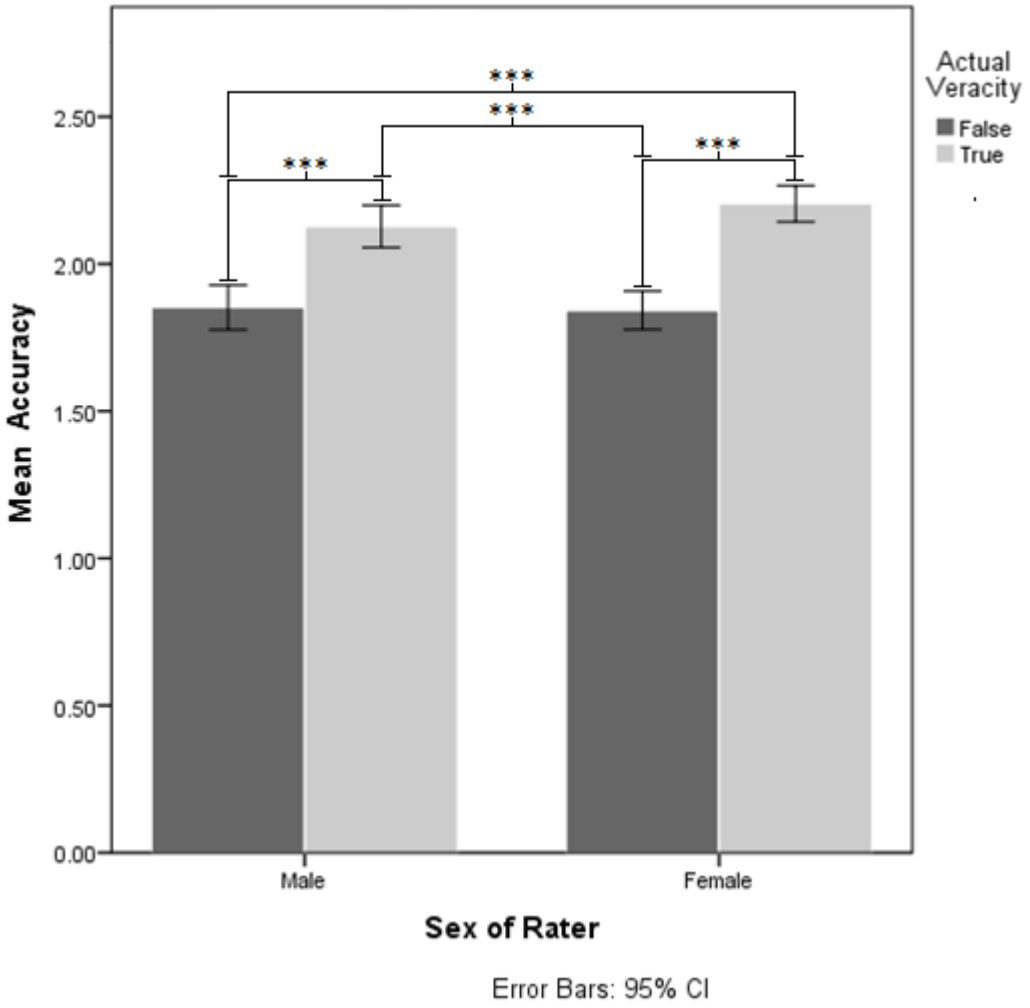

Figure 4. Sex of Rater by Actual Veracity

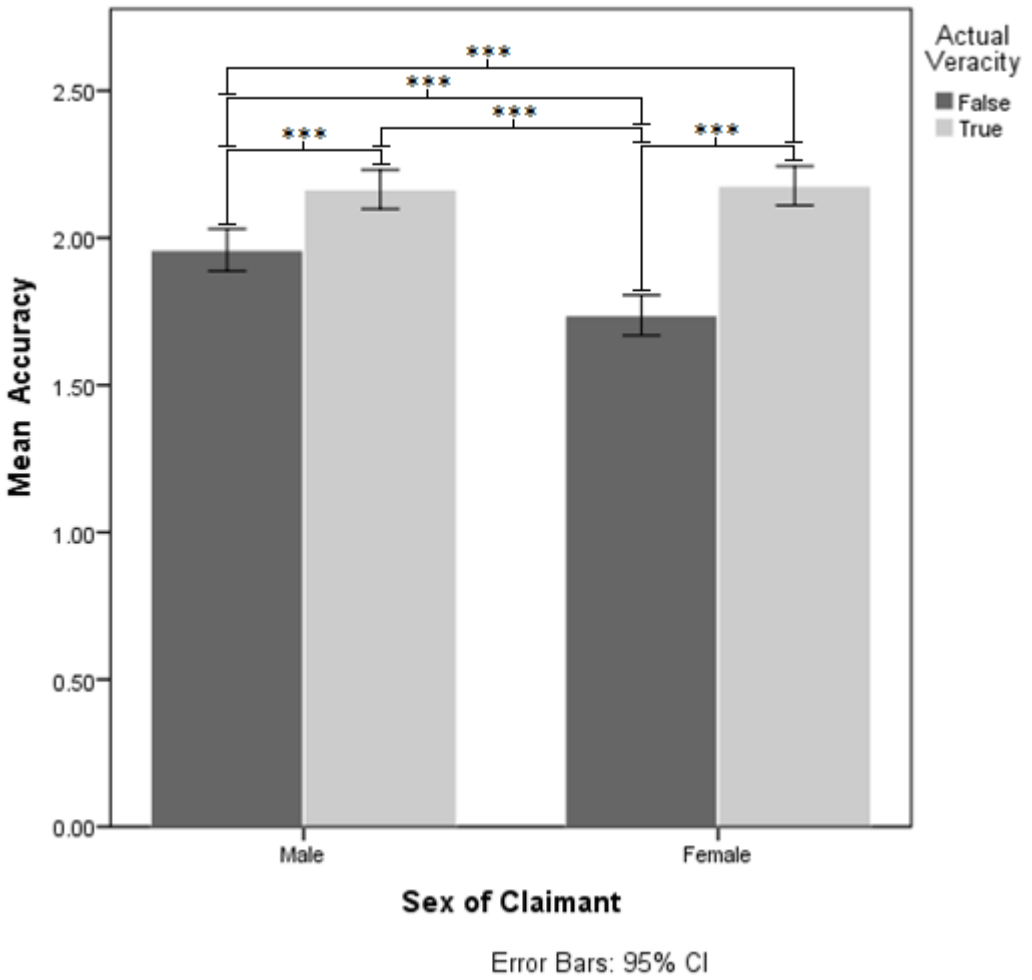

Figure 5. Sex of Claimant by Actual Veracity

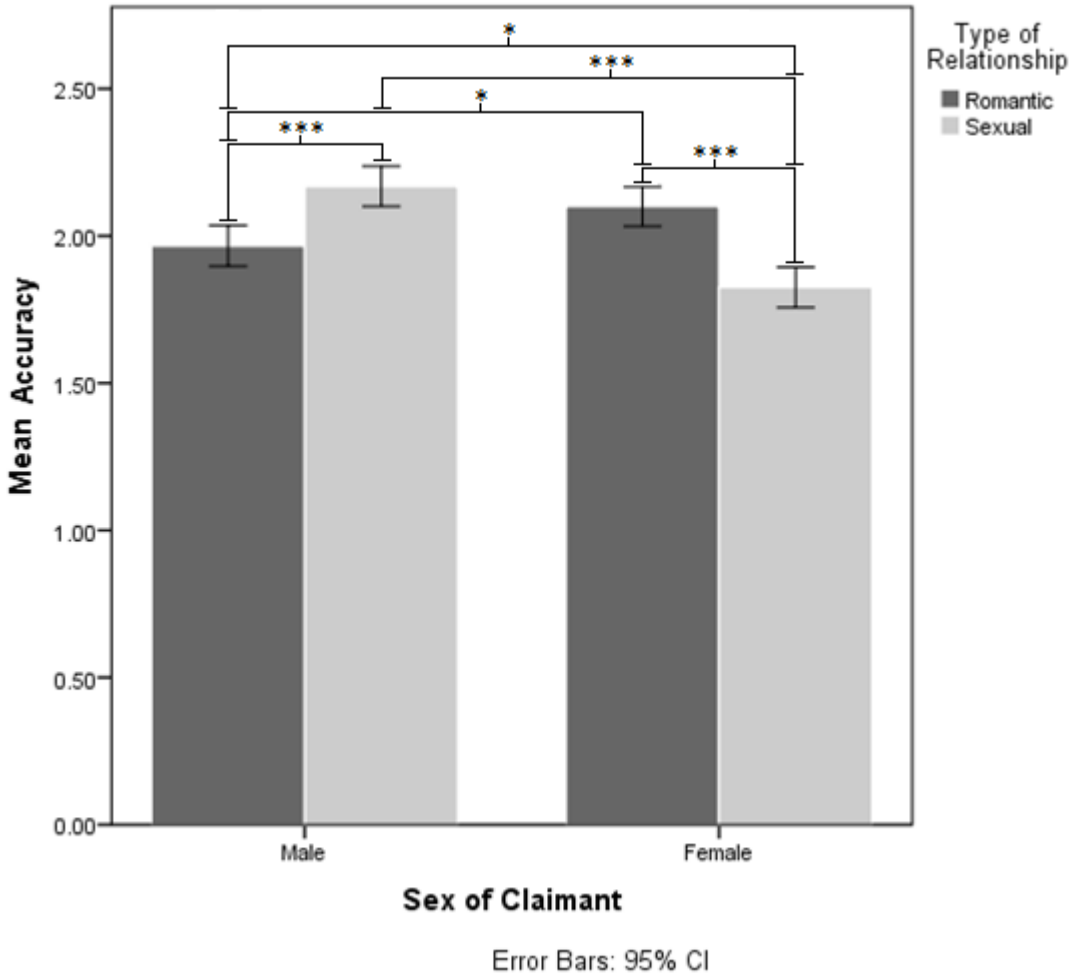

Figure 6. Sex of Claimant by Type of Relationship

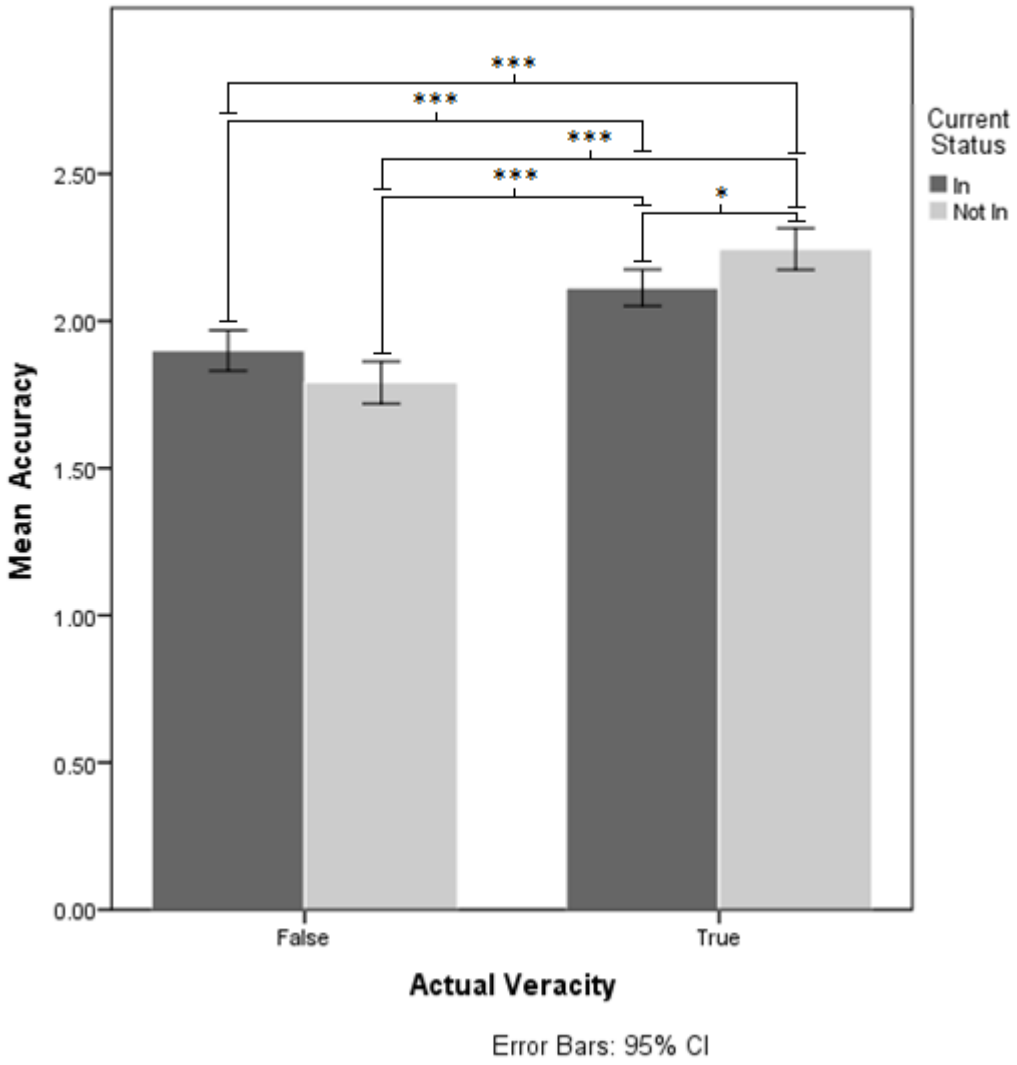

Figure 7. Actual Veracity by Current Status

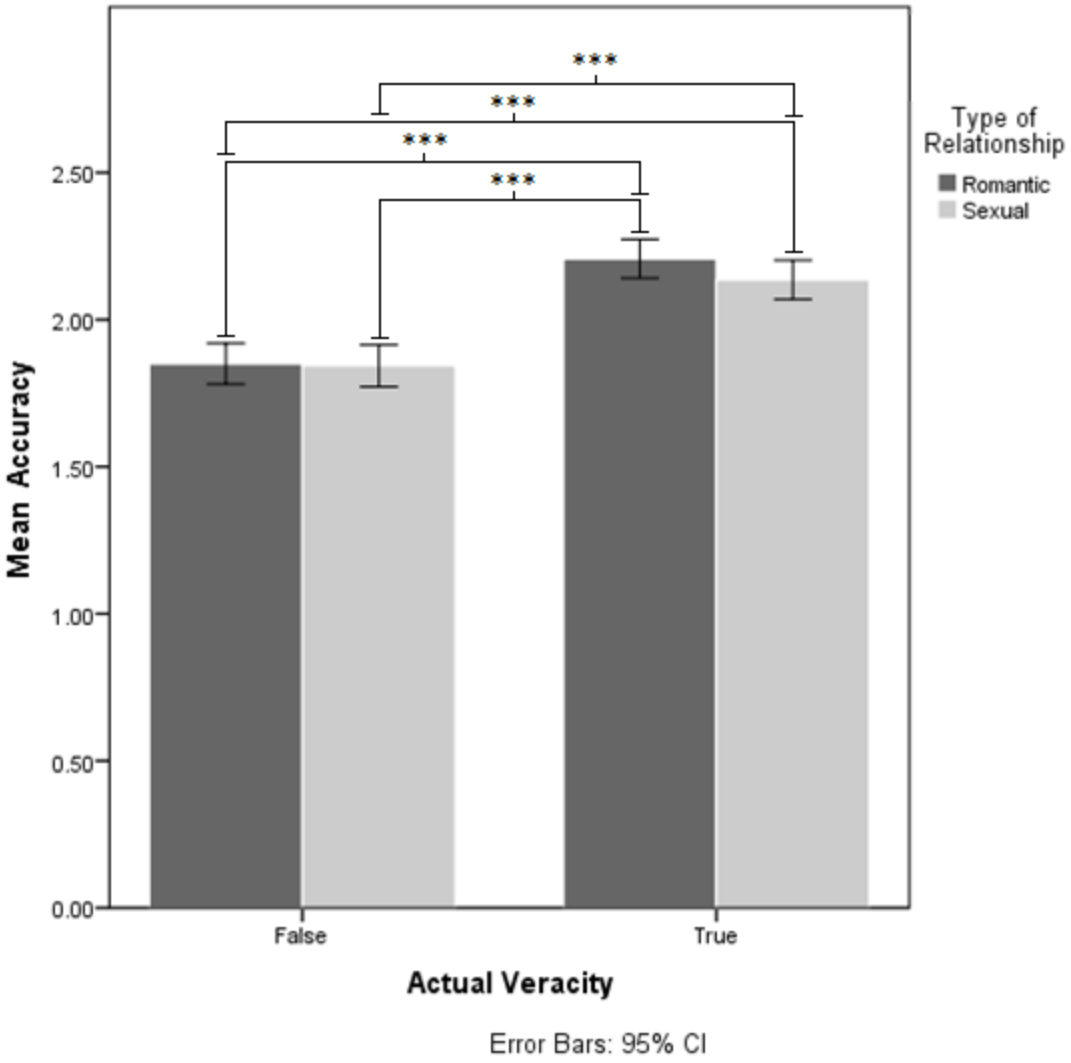

Figure 8. Actual Veracity by Type of Relationship

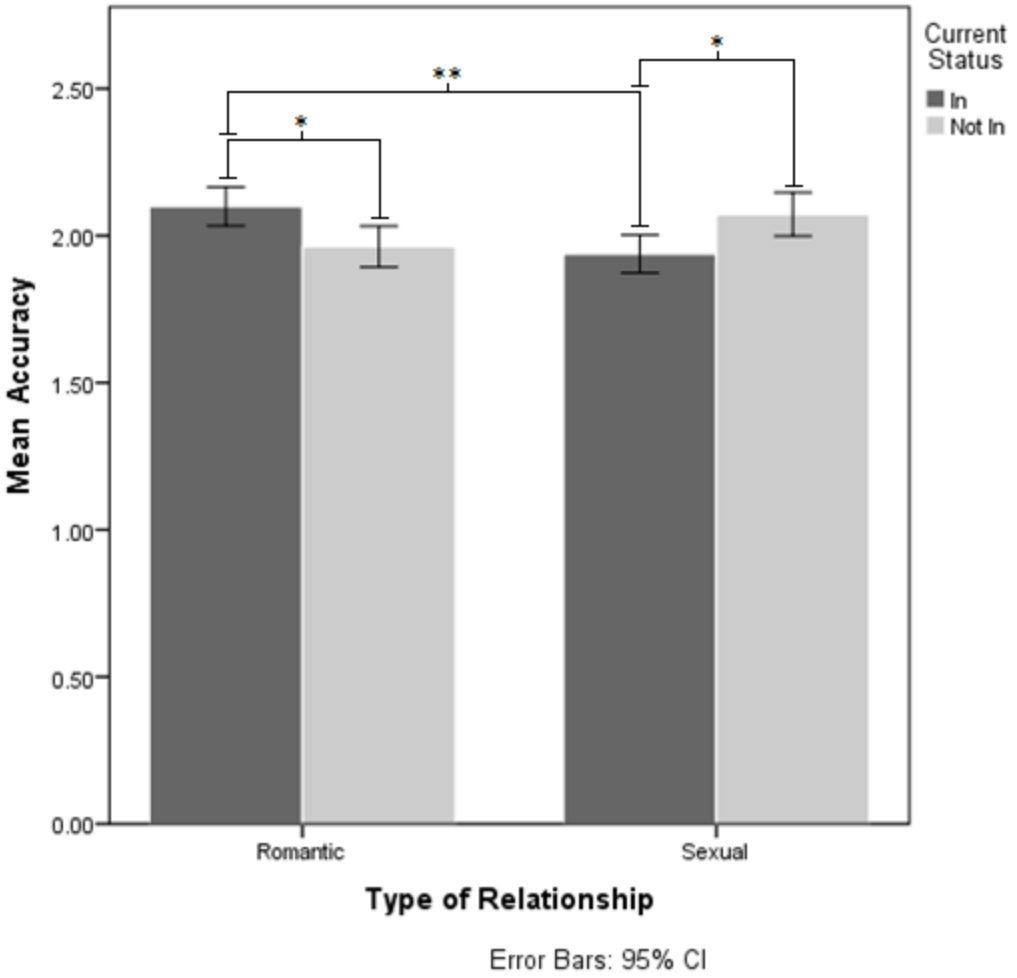

Figure 9. Type of Relationship by Current Status

Recorder Survey

Please read and circle/write the response that best describes you at this time.

1. Sex
   Please indicate your sex: Male Female

2. Age
   Please indicate your age in years: _____

3. Sexual Orientation
   Please indicate your sexual orientation: Heterosexual Homosexual
   Bisexual Other:_____

4. Are you currently in a romantic relationship? Yes No

5. Are you currently in a sexual relationship? Yes No

Judge Survey Date:_____

Please read and circle/write the response that best describes you at this time.

1. Sex

Please indicate your sex: Male Female Other:_____

2. Age

Please indicate your age: _____

3. FEMALE-ONLY QUESTION: Are you currently using hormonal contraceptives (e.g., birth control pills, birth control patch, etc.)? Yes No

4. FEMALE-ONLY QUESTION: Have you used any form of hormonal contraceptives in the last three months? Yes No

5. FEMALE-ONLY QUESTION: A regular cycle is defined as the number of days between periods being the same from cycle to cycle (e.g., every 28 days). How regular is your menstrual cycle?

A. Regular
B. Somewhat Regular
C. Somewhat Irregular
D. Very Irregular

6. FEMALE-ONLY QUESTION: How many days, on average, does your menstrual cycle last (from the start of one menstruation to the start of the next)?

_____

7. FEMALE-ONLY QUESTION: Use the calendar as needed to answer the following question. Please indicate the date when your last menstrual period began, in the same format as the example (e.g., Sunday, July 8th, 2012):

_____

Relationship Status Evaluation

You will see a series of video clips in which targets will make claims about their relationship status. After each clip, please rate the validity of the target's claim, on a scale from definitely false to definitely true, to the best of your ability. Please place an X in the box that corresponds to your response. Each video is numbered in the presentation, so please make sure the numbers match up when you are filling out the survey. There will be a "ding" to alert you that the next video will play after 5 seconds.

Target #	Definitely False	Possibly False	Unable to Judge Validity	Possibly True	Definitely True
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					

RELATIONSHIP STATUS DECEPTION DETECTION

Target #	Definitely False	Possibly False	Unable to Judge Validity	Possibly True	Definitely True
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					